

Radiometric detection remains the standard used by researchers in many scientific applications. Its' unprecedented sensitivity gives results that technicians and scientists can trust.

## **Table of Contents**

	NEN Radiochemicals & Radionuclides Reference Guide	
	<sup>32</sup> P-Labeled Nucleotides	4
	<sup>33</sup> P-Labeled Nucleotides	5
	<sup>35</sup> S-Labeled Nucleotides	6
	<sup>35</sup> S-Labeled Amino Acids	7
	125  Labeled Products	8
	<sup>3</sup> H- and <sup>14</sup> C-Labeled Products	12
	Radionuclides	14
	Therapeutic Radionuclides	17
	Radioimmunoassay Kits	18
	Technical, Safety & Storage Information	19
•	Radionuclide Safe Handling Guides	21
	Common Radiochemical Measurements & Conversions	24
•	Vial Packaging	26
	Radiochemical "ABC" Product Listing	30
	Films, Screens & Accessories	119
	Dedicated Microplates for Scintillation Counting	120
	Custom Radiosynthesis & Radiolabeling Services	121
•	SPA Reagents & Technologies	127
•	Radiation Safety Equipment	131
•	Radiometric Detection Instrumentation	133
	Scintillation Cocktails & Consumables	137
•	GPCR Membrane Guide	161
Orc	dering Guide	
	To Place an Order/Payment Options/Product Availability & Delivery	171
	Changes or Cancellations/Product Inspection, Credits & ReturnsTechnical Support	172
	Online Ordering	173
•	Terms & Conditions of Sale	177
•	Licensing Requirements	179
	Technical Support	181

## **50 YEARS OF SUCCESS**

For over 50 years PerkinElmer has been a leading supplier of radiochemicals, liquid scintillation cocktails, vials and nuclear counting detection instruments. Today is no different. We have always been committed to providing you products for all of your radiometric needs and we are still committed today.

We are the source for many of the top brands of reagents and instruments for radiometric detection that everyone knows—from NEN® radiochemicals and Scintillation Proximity Assay (SPA) technologies to the MicroBeta², TopCount, and Tri-Carb® benchtop liquid scintillation analyzers and the WIZARD² automatic gamma counter. These are the systems of choice for all research applications. The Tri-Carb3180 and Quantulus are the best in class for ultra low level environmental monitoring and testing.

Radiometric detection is far more than reagents and instruments. You need scintillation cocktails, microplates, vials, film, safety equipment, service and the know how to use these techniques. PerkinElmer delivers what you need to be successful.

At PerkinElmer, we're taking action to improve the health and safety of people and their environment. Engaged in a proactive fight against illness, contamination and threats to our well-being, PerkinElmer conceives and delivers scientific solutions and components to meet our society's ever-changing needs. We're committed to transforming risk into safety, mystery into knowledge and ideas into action for a healthier today and a better tomorrow.

www.perkinelmer.com/radiometricdetection

## **NEN Radiochemicals Reference Guide**

## <sup>32</sup>P-Labeled Nucleotides

### Fresh Lot Calendar: www.perkinelmer.com/Toolkit

Fresh Lot	Half Life	Precalibration	Package Sizes	Packaging
Every Thursday	14.3 days	9 days	100 μCi 250 μCi 500 μCi 1 mCi	Shipped in a choice of blue plastic (BLU prefixes) or lead-lined grey plastic (NEG prefixes) packaging. Shipment in lead is required only for <sup>32</sup> P quantities above 1.5 mCi. Help minimize hazardous waste: order lead-free packaging whenever feasible.

<sup>32</sup> P-Labeled Compound	Specific Activity	Concent	ration	Product Nur	nbers
	[Ci/mmol]	[mCi/mL]	[μM]	Color-coded green EasyTides.® Ready to use. Shipped ambient. Store at 2–8°C.	Shipped in dry ice. Store at -20 °C.
ATP, $[\alpha^{-32}P]$ -	800	10	12.5	_	BLU003X/NEG003X
	3000	10	3.3	BLU503H/NEG003H	BLU003H/NEG003H
CTP, $[\alpha^{-32}P]$ -	800	10	12.5	BLU508X/NEG508X	BLU008X/NEG008X
	3000	10	3.3	BLU508H/NEG508H	BLU008H/NEG008H
GTP, [α- <sup>32</sup> P]-	800	10	12.5	_	BLU006X/NEG006X
	3000	10	3.3	BLU506H/NEG506H	BLU006H/NEG006H
UTP, [α- <sup>32</sup> P]-	800	10	12.5	BLU507X/NEG507X	BLU007X/NEG007X
	800	20	25	BLU507T/NEG507T	
	800	40	50	BLU507C/NEG507C	BLU007C/NEG007C
	3000	10	3.3	BLU507H/NEG507H	BLU007H/NEG007H
	6000	40	6.7	BLU507Z/NEG507Z	BLU007Z/NEG007Z
dATP, [α- <sup>32</sup> P]-	800	10	12.5	BLU512A/NEG512A	_
	3000	10	3.3	BLU512H/NEG512H	BLU012H/NEG012H
	6000	20	3.3	BLU512Z/NEG512Z	BLU012Z/NEG012Z
dCTP, [α- <sup>32</sup> P]-	800	10	12.5	BLU513A/NEG513A	BLU013A/NEG013A
	3000	10	3.3	BLU513H/NEG513H	BLU013H/NEG013H
	6000	20	3.3	BLU513Z/NEG513Z	BLU013Z/NEG013Z
dGTP, [α- <sup>32</sup> P]-	3000	10	3.3	BLU514H/NEG514H	_
	6000	20	3.3	BLU514Z/NEG514Z	BLU014Z/NEG014Z
dTTP, [α- <sup>32</sup> P]-	800	10	12.5	BLU505A/NEG505A	BLU005A/NEG005A
	3000	10	3.3	BLU505H/NEG505H	BLU005H/NEG005H
3'dATP, [α- <sup>32</sup> P]-	5000	10	2	_	BLU026/NEG026
ATP, [γ- <sup>32</sup> P]-	10	2	200	_	BLU002/NEG002
	3000	5	1.7	BLU502H/NEG502H	BLU002H/NEG002H
	3000	10	3.3	BLU502A/NEG502A	BLU002A/NEG002A
	6000	10	1.7	BLU502Z/NEG502Z	BLU002Z/NEG002Z
	6000	150	25	_	NEG035C
GTP, [γ- <sup>32</sup> P]-	6000	10	1.7	BLU504Z/NEG504Z	BLU004Z/NEG004Z
NAD, [ <sup>32</sup> P]-	800	5	6.3	_	BLU023X/NEG023X
pCp, [5'- <sup>32</sup> P]-	3000	10	3.3	_	BLU019A/NEG019A

New products being added regularly. Visit www.perkinelmer.com/NewProducts for details.

## <sup>33</sup>P-Labeled Nucleotides

Fresh Lot	Half Life	Precalibration	Package Sizes	Packaging
Every Other Friday *Every Friday	25.4 days	13 days	100 μCi 250 μCi 1 mCi	Shipped in white plastic, available in lead-lined grey plastic upon request.

<sup>33</sup> P-Labeled Compound	Specific Activity	Concentration		Product Numbers	
	[Ci/mmol]	[mCi/mL]	[µM]	Color-coded amber gold EasyTides®. Ready to use. Shipped ambient. Store at 2–8°C.	Shipped in dry ice. Store at -20 °C.
ATP, [α- <sup>33</sup> P]-	3000	10	3.3	NEG603H	_
CTP, [α- <sup>33</sup> P]-	3000	10	3.3	NEG608H	_
GTP, [α- <sup>33</sup> P]-	3000	10	3.3	NEG606H	
UTP, [α- <sup>33</sup> P]-	3000	10	3.3	NEG607H	NEG307H
dATP, $[\alpha^{-33}P]$ -	3000	10	3.3	NEG612H	NEG312H
dCTP, $[\alpha^{-33}P]$ -	3000	10	3.3	NEG613H	NEG313H
dTTP, $[\alpha^{-33}P]$ -	3000	10	3.3	NEG605H	_
ATP, [γ- <sup>33</sup> P]-	3000 3000	10 10	3.3 3.3	NEG602H NEG602K*	NEG302H

New products being added regularly. Visit www.perkinelmer.com/NewProducts for details.

## 35S-Labeled Nucleotides

Fresh Lot	Half Life	Precalibration	Package Sizes	Packaging
First Tuesday each month	87.4 days	5 weeks	100 μCi 250 μCi 1 mCi	Shipped in yellow plastic, available in lead-lined grey plastic upon request.

<sup>35</sup> S-Labeled Compound	Specific Activity	Concentration		Product Nu	ımbers
	[Ci/mmol]	[mCi/mL]	[MM]	Color-coded blue EasyTides. Ready to use. Shipped ambient. Store at 2–8°C.	Shipped frozen. Store at -20°C.
ATPαS, [35S]-	1250	12.5	10	_	NEG033H
CTPαS, [ <sup>35</sup> S]-	1250 1250	12.5 70	10 56		NEG064H NEG064C
UTPαS, [ <sup>35</sup> S]-	800 1250	40 12.5	50 10	— NEG739H	NEG039C NEG039H
dATP $\alpha$ S, [ $^{35}$ S]-	500 1250	10 12.5	20 10	— NEG734H	NEG034S NEG034H
ATPγS, [ <sup>35</sup> S]-	25–100 1250	12.5 12.5	125–500 10		NEG027 NEG027H
GTPγS, [ <sup>35</sup> S]-	1250 1250	12.5 12.5	10 10		NEG030H NEG030X
PAPS 3', [35S]-	1–3	0.5	167–500	_	NEG010

To learn more about our compatible instruments, cocktails, film and membranes, please visit www.perkinelmer.com/RadiometricDetection.

## 35S-Labeled Amino Acids

### Fresh Mondays, Every Three Weeks

Product Name	Molecular Formula & Labeling Position	Specific Activity [Ci/mmol]	Activity Concentration [mCi/mL]	Product No.
Cysteine, L-[35S]- Packaged in 10 mM DTT.	HSCH <sub>2</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H	>1000	11	NEG022T
prepared directly from the hydrol	N/A  [35S]-methionine and 22% L-[35S]-cysteine ysate of E. coli grown in the presence of oilizer. Packaged in a stabilized aqueous solu	>1000 ution.	11	NEG772
prepared directly from the hydrol	N/A  [35S]-methionine and 22% L-[35S]-cysteine ysate of E. coli grown in the presence of 0 mM tricine (pH 7.4) and 10 mM 2-mercap	>1000 toethanol.	11	NEG072
Methionine, L-[35S]- Cell Labeling Grade Packaged in 10 mM 2-mercaptor	$CH_3S(CH_2)_2CH(NH_2)CO_2H$ ethanol.	>600	31.5	NEG009L
Methionine, L-[ <sup>35</sup> S]- Packaged in 10 mM 2-mercaptor	CH <sub>3</sub> S(CH <sub>2</sub> ) <sub>2</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H ethanol.	>800	11	NEG009H
Methionine, L-[35S]-, (EasyTag) Packaged in a stabilized aqueous solution with blue dye.	CH <sub>3</sub> S(CH <sub>2</sub> ) <sub>2</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H	>1000	10.2	NEG709A
Methionine, L-[ <sup>35</sup> S]- Packaged in 50 mM tricine (pH 7 and 10 mM 2-mercaptoethanol.	CH <sub>3</sub> S(CH <sub>2</sub> ) <sub>2</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H .4)	>1000	10.2	NEG009A
Methionine, L-[35S]- Packaged in 10 mM 2-mercaptor	CH <sub>3</sub> S(CH <sub>2</sub> ) <sub>2</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H ethanol.	>1000	11	NEG009T
Methionine, L-[35S]- Packaged in 50 mM tricine (pH 7 and 10 mM 2-mercaptoethanol.	CH <sub>3</sub> S(CH <sub>2</sub> ) <sub>2</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H .4)	>1000	43.3	NEG009C

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## <sup>125</sup>I-Labeled Products

Product	Product No.
A-85380, [125]]-	NEX413
AB-MECA, [1251]-, (4-amino-3-[1251]iodobenzyl-5'-N-)	NEX312
ACTH, (1-39) Tyr²-[1251]-	NEX342
ACTH, (1-39) Tyr <sup>23</sup> -[ <sup>125</sup> 1]-	NEX165
Adenosine 3',5'-cyclic phosphoric acid, 2'-O-succinyl [1251]-iodotyrosine methyl ester	NEX130
Adrenomedullin, [1251]Tyr-, (human, 13–52)	NEX385
Adrenomedullin (Rat), [1251]-	NEX427
AGRP (Ac-87-132), [1251]-, (human, synthetic)	NEX372
Albumin, Bovine Serum, [1251]-, ([1251]-BSA)	NEX076
Aminopotentidine, [125]	NEX431
Amylin, [125]-, (rat)	NEX448
Angiotensin I (Tyr <sup>4</sup> ), [ <sup>125</sup> I]-, (human)	NEX101
Angiotensin II (Sar¹,Tyr⁴, Ile³), [¹²⁵I]-	NEX248
Angiotensin II (Tyr <sup>4</sup> ), [ <sup>125</sup> I]-, (human)	NEX105
Angiotensin IV (Tyr²), [1251]-, (human)	NEX295
Anti-mouse IgG, whole antibody, [125]-, (goat)	NEX159
Anti-rabbit IgG, whole antibody, [1251]-, (goat)	NEX155
Antisauvagine-30 (8-1-His²), [(¹2⁵I)]-	NEX399
Apamin (His <sup>18</sup> -NH <sub>2</sub> ), [ <sup>125</sup> I]-	NEX242
Apelin 13 (Glp <sup>65</sup> , Nle <sup>75</sup> , Tyr <sup>7</sup> ), [ <sup>125</sup> l]-	NEX393
Atrial Natriuretic Factor - Tyr28 (rat) - [1251]- ANF	NEX228
$lpha$ - Atrial Natriuretic Peptide - Tyr28 (human) [ $^{125}$ I] $lpha$ -ANP	NEX425
BeKm-1 (Tyr <sup>11</sup> ), [ <sup>125</sup> I]-	NEX412
Bolton-Hunter Reagent, [1251]-, (monoiodinated)	NEX120
Bolton-Hunter Reagent, [1251]-, (diiodinated)	NEX120H
Bombesin (D-Tyr <sup>6</sup> , βAla <sup>11</sup> , Phe <sup>13</sup> , Nle <sup>14</sup> ), [ <sup>125</sup> l]-, (6–14)	NEX377
Bombesin (Tyr <sup>4</sup> ), [125 ]-	NEX258
α-Bungarotoxin (Tyr <sup>54</sup> ), [ <sup>125</sup> I]-	NEX126
	NEX126H
Calcitonin Gene-Related Peptide, [125]-, ([125]-hCGRP), (human)	NEX354
Calcitonin [Tyr <sup>12</sup> ] (Human), [1 <sup>25</sup> l]	NEX422
Calcitonin Gene-Related Peptide, - 2-[1251]-iodohistidyl10,(human) Receptor Grade	NEX442
Calcitonin[Tyr <sup>22</sup> ] (Salmon), [ <sup>125</sup> l]	NEX423
CCL15, [125]-, (human, recombinant)	NEX401
CGP 42112A, [1 <sup>25</sup> I]-	NEX324
Cholecystokinin Octapeptide, [1251]-, Bolton-Hunter labeled, ([1251]-CCK-8)	NEX203
Chorionic Gonadotropin [1251], ([1251]-hCG), (human)	NEX106
6-Ckine, [125]-, Bolton-Hunter labeled, (CCL21), (human, recombinant)	NEX387
Complement C3a, [1251]-, Bolton-Hunter labeled, (human)	NEX356
Complement C5a, [1251]-, Bolton-Hunter labeled, (human, recombinant)	NEX250
ω-Conotoxin GVIA (Tyr²²), [¹²⁵l]-	NEX239
ω-Conotoxin MVIIC, [125I]-	NEX323
Corticotropin Releasing Factor (Tyrº), [1251]-, (ovine)	NEX217
Corticotropin Releasing Factor (Tyrº), [125]-, (human, rat)	NEX216
Cortisol-3-(0-carboxymethyl)oximino-(2-[1251], iodohistamine)	NEX435
CTACK, [1251]-, (CCL27), (human, recombinant)	NEX391

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Product	Product No.
CXCL16, [125]-, (human, recombinant)	NEX398
(-)-Cyanopindolol, [1251]iodo-	NEX189
(±)-Cyanopindolol, [¹²⁵l]iodo-	NEX174
Dendrotoxin- $\alpha$ -[ $^{125}$ l]	NEX434
2'-Deoxycytidine-5'-triphosphate, tetraammonium salt, 5-[1251]iodo-	NEX074
(±)-DOI, [ <sup>125</sup> I]-	NEX255
Echistatin [1251] -	NEX439
Eledoisin (Lys <sup>4</sup> ), [ <sup>125</sup> I]-, Bolton-Hunter labeled	NEX218
Endothelin-1 (Tyr¹³), [¹²5]]-, ([¹²5]]-ET-1), (human, porcine)	NEX259
Eotaxin, [125]-, (human, recombinant)	NEX314
Epibatidine, [ <sup>125</sup> I]-, ([ <sup>125</sup> I]-IPH)	NEX358
Epidermal Growth Factor, [1251]- (human, recombinant)	NEX428
Epidermal Growth Factor, [125]-, ([125]-EGF), (murine)	NEX160
Estradiol-6-(0-carboxymethyl)oximino-(2-[125]], iodohistamine)	NEX438
3,17 $\beta$ -Estradiol, 16 $\alpha$ -[ $^{125}$ l]iodo-	NEX144
5/1/6/2010/00/1900	NEX144L
Exendin, [125]-, (9–39)	NEX335
Fibrinogen (Human), [1251]	NEX430
Fibroblast Growth Factor Basic, [1251]-, ([1251]-FGF basic), (human, recombinant)	NEX268
Follicle Stimulating Hormone, [1251]-, ([1251]-FSH)	NEX173
Fractalkine, [125]-, (human, recombinant)	NEX368
Galanin, [125]-, (2–11)	NEX416
Galanin, [125]-, (human)	NEX333
Galanin, [125]-, (porcine)	NEX243
Gastric Inhibitory Polypeptide, [125I]-, (human)	NEX402
Gastrin Releasing Peptide (porcine), [125]-Tyr15]-[125]-GRP(p)	NEX421
Gastrin I (Tyr <sup>12</sup> ), [ <sup>125</sup> I]-, (human)	NEX176
Ghrelin (His), [1251]-, (human)	NEX388
Glucagon-like Peptide-1, [125]-, ([125]-GLP-1), (7–36)	NEX308
Glucagon-like Peptide-2, [125]-, ([125]-GLP-2)	NEX390
Glucagon, [125I]-, receptor grade	NEX207
Granulocyte Macrophage-Colony Stimulating Factor, [1251]-,	NEX249
GRO Alpha/MGSA, [1251]-	NEX321
Growth Hormone, [1251]-, ([1251]-hGH), (human)	NEX100
Guanosine 3',5'-cyclic phosphoric acid, 2'-O-succinyl, [1251]-iodotyrosine, methyl ester	NEX131
HEAT, [125]]-	NEX182
Hemokinin-1, [125]-, Bolton-Hunter labeled	NEX414
1309, [1251]-, Bolton-Hunter labeled, (human, recombinant)	NEX364
INSL-3, [ <sup>125</sup> I]-	NEX419
Insulin, [125]-(human, recombinant)	NEX420
Insulin, [125]-, (porcine)	NEX104
Insulin, (Tyr <sup>A14</sup> ), [ <sup>125</sup> ]-, receptor grade, (porcine)	NEX196
Insulin-like Growth Factor-I, [125]-, ([125]-IGF-I), (human, recombinant)	NEX241
Insulin-like Growth Factor II (human, recombinant), [125]]	NEX429
	IVENTES

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Product	Product No.
	NEX232
Interleukin-1β, [¹²⁵l]-, ([¹²⁵l]-IL-1β), (human, recombinant) Interleukin-2, [¹²⁵l]-, ([¹²⁵l]-IL-2), (human, recombinant)	NEX229
Interleukin-6, [1251]-, ([1251]-IL-6), (human, recombinant)	
Interleukin-8, [1251]-, ([1251]-IL-8), (human, recombinant)	NEX269
	NEX277
Interleukin-8 (IL-8), [1251]-, (human, recombinant) receptor grade	NEX443
lodoclonidine, p-[125]-, (2-(2,6-dichloro-4)-[125]-)	NEX253
lododeoxyuridine, 5-[125]]-	NEXO72
lodoproxyfan-[1251]	NEX436
Iodosulpride-[1251], (dopamine D2 antagonist)	NEX441
IP-10, [ <sup>125</sup> ], Bolton-Hunter labeled, (human, recombinant)	NEX348
I-TAC, [1251]-, (human, recombinant)	NEX376
JE, [125I]-, Bolton-Hunter labeled, (MCP-1, murine, recombinant)	NEX313
Leptin, [1251]-, (human, recombinant)	NEX347
Leptin, [1251]-, (murine, recombinant)	NEX340
Luteinizing Hormone Releasing Hormone (D-Trp6), [1251]-, ([1251]-LH-RH)	NEX365
Luteinizing Hormone Releasing Hormone (Tyr <sup>5</sup> ), [1 <sup>25</sup> I]-, ([1 <sup>25</sup> I]-LH-RH)	NEX163
(+)-Lysergic Acid Diethylamide, 2-[ <sup>125</sup> 1]iodo-, ([ <sup>125</sup> 1]-LSD)	NEX199
Mamba Intestinal Toxin-1, [1251]-Bolton-Hunter labeled [1251]-MIT-1	NEX414
Melanin Melanin Concentrating Hormone (Phe <sup>13</sup> , Tyr <sup>19</sup> ), [ <sup>125</sup> I]-, (Phe <sup>13</sup> [ <sup>125</sup> I]Tyr <sup>19</sup> -MCH), (human, mouse, rat)	NEX375
Melanin Concentrating Hormone, [1251]-, ([1251]-MCH), (human)	NEX373
Melanin Concentrating Hormone-1 Receptor antagonist, [1251]-, ([1251]-hMCH-1R), (human)	NEX406
Melatonin, 2-[1251]iodo-	NEX236
Metastin, [1251]-, (45–54)	NEX395
Monocyte Chemoattractant Protein-1 [1251], Bolton-Hunter labeled, ([1251]-MCP-1), (human, recombinant)	NEX332
MIP-1α, [125]-, (human, recombinant)	NEX298
MIP-1β (Leu³, Gly⁴7), [¹25l]-, (human, recombinant)	NEX299
MIP-3α, [125]-, (human, recombinant)	NEX371
MIP-3β, [125]-, (human, recombinant)	NEX370
MIT-1, [125I]-, Bolton-Hunter labeled	NEX410
Motilin, [1251]-	NEX378
α-MSH (Nle <sup>4</sup> , D-Phe <sup>7</sup> ), [ <sup>125</sup> l]-	NEX352
MT II (His), [ <sup>125</sup> I]-	NEX374
β-Nerve Growth Factor, [125]-, (human, recombinant)	NEX440
Neurokinin A, [125]-, ([125]-Substance K, [125]-NKA)	NEX252
Neurokinin B (MePhe <sup>7</sup> ) His, [ <sup>125</sup> I]-, ([ <sup>125</sup> I]-NKB)	NEX285
Neuromedin U-25 (Tyr <sup>18</sup> ), [ <sup>125</sup> I]-, ([ <sup>125</sup> I]-NMU-25), (porcine)	NEX383
Neuromedin U-8, [125]-, ([125]-NMU-8)	NEX392
Neuropeptide B23 (Des-Br), [125]-, ([125]-NPB23), (human)	NEX405
Neuropeptide FF (D-Tyr¹, N-MePhe³), [125]-, ([125]-NPFF)	NEX381
Neuropeptide S (Tyr¹0), [¹²5]-, ([¹²5]-NPS), (human)	NEX411
Neuropeptide W23, [1251]-, ([1251]-NPW23), (human)	NEX403
Neuropeptide Y (Lys4), [125]]-Bolton Hunter labeled, [125]-NPY, (porcine)	NEX222
Neurotensin (Tyr³), [¹²51]-	NEX198
Nociceptin (Tyr <sup>14</sup> ), [ <sup>125</sup> ]-	NEX338
Orexin A, [125I]-	NEX367
Ornithine Vasotocin Analog, [125]-, ([125]-OVTA)	NEX254
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Product	Product No.
Oxytocin (Tyr2), [1251]-	NEX187
PACAP 27, [1251]-	NEX294
PDGF-BB (h,r), [ <sup>125</sup> l]	NEX433
Pancreatic Polypeptide, [125I]-, (human)	NEX315
Parathyroid Hormone (Nle <sup>8,18</sup> , Tyr <sup>34</sup> ), [1 <sup>25</sup> ]-, ([1 <sup>25</sup> ]-PTH), (human, 1–34)	NEX397
Parathyroid Hormone amide (Nle <sup>8,21</sup> , Tyr <sup>34</sup> ), [ <sup>125</sup> I]-, ([ <sup>125</sup> I]-PTH amide), (rat, 1–34)	NEX353
Peptide YY (Leu³1, Pro³4), [¹25l]-, ([¹25l]-PYY), (porcine)	NEX334
Peptide YY, [1251]-, ([1251]-PYY), (human)	NEX341
Peptide YY, [1251]-, ([1251]-PYY), (porcine)	NEX240
(-)-Pindolol, [ <sup>125</sup> I]iodo-	NEX211
R (+) trans-7-hydroxy-PIPAT, [ <sup>125</sup> I]-	NEX307
Prazosin Analog, [1251]iodoazido-, (lodoarylazidoprazosin)	NEX219
Prolactin, [1251]-, (rat)	NEX108
Protein A, [1251]-, (human, recombinant)	NEX146
	NEX146L
Protein G, [1251]-, Bolton-Hunter labeled, (human, recombinant)	NEX237
ProTx-II, [1251]-, (tarantula)	NEX450
QRFP-43, [1251]-, (human)	NEX408
RANTES, [1251]-, (human, recombinant)	NEX292
H2 Relaxin, [1251]-, Bolton-Hunter labeled	NEX409
H3 Relaxin, [125]-	NEX418
Resiniferatoxin, [125]-	NEX394
RTI-121, [125]-	NEX318
RTI-55, [125]-	NEX272
\$36057 (Tyr), [125]]-	NEX396
SB258585, [ <sup>125</sup> l]	NEX424
Sauvagine (Tyr <sup>0</sup> ), [1251]-	NEX306
SDF-1α, [ <sup>125</sup> I]-, (human, recombinant)	NEX346
SHU9119, [1251]-	NEX362
Somatostatin-14 (Tyr <sup>11</sup> ), [ <sup>125</sup> I]-	NEX389
Somatostatin-14 (Tyr¹¹), [¹²⁵l]-, (human, recombinant) receptor grade	NEX446
Somatostatin-28, [125]	NEX447
2'-Spiperone, [125]jiodo-	NEX284
Streptavidin, [125]-	NEX238
Substance P (Lys³), [¹²⁵l]-, Bolton-Hunter labeled	NEX190
Substance P (Tyr <sup>8</sup> ), [125]]-	NEX152
TARC, [125]-, (human, recombinant)	NEX369
Thyrotropin Releasing Hormone (His²), [1251]-, ([1251]-TRH)	NEX153
Thyroxine, L-, [1251]-, ([1251]-T <sub>4</sub> )	NEX111
Transferrin, [125]-, diferric, (human)	NEX212
Transforming Growth Factor β-1, [1251]-, ([1251]-TGF-β1), (human, recombinant)	NEX267
Triiodothyronine, L-3,3',5'-[ <sup>125</sup> l]-, ([ <sup>125</sup> l]-Reverse T3)	NEX109
Triiodothyronine, L-3,5,3'-[ <sup>125</sup> ]-, ([ <sup>125</sup> ]-T3)	NEX110
, , , , , , , ,	NEX110H
	NEX110X
Tumor Necrosis Factor- $\alpha$ , [1251]-, ([1251]-rTNF $\alpha$ ), (human, recombinant)	NEX257
Ubiquitin, [125]-	NEX404
Urotensin II (Tyr <sup>9</sup> ), [125I]-, (human)	NEX379
Vascular Endothelial Growth Factor, [1251]-, ([1251]-VEGF), (human, recombinant)	NEX328
Vasoactive Intestinal Polypeptide, [1251]-, ([1251]-VIP), (human, porcine, rat)	NEX192
Vasopressin (linear), V <sub>1A</sub> antagonist (phenylacetyl¹, 0-Me-D-Tyr², Arg <sup>6,8</sup> , Tyr³), [125I]-	NEX310
Vasopressin (Tyr², Arg³), [1251]-	NEX128
WKYMVm, [1251]-, Bolton-Hunter labeled	NEX386

## <sup>3</sup>H-Labeled Amino Acids

Product Name	Molecular Formula & Labeling Position(s)	Specific Activity [Ci/mmol]	Activity Conc. [mCi/mL]	Product No.
Alanine, L-[3-3H]-	CH <sub>3</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H	65–85	1	NET348
Arginine monohydrochloride, L-[2,3,4-3H]-	H <sub>2</sub> NC(NH)NH(C <b>H</b> <sub>2</sub> ) <sub>3</sub> C <b>H</b> (NH <sub>2</sub> )CO <sub>2</sub> H.HCl	40–70	1	NET1123
Aspartic acid, D-[2,3-3H]-	HO <sub>2</sub> CC <b>H</b> <sub>2</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H	10–25	1	NET581
Glutamic acid, L-[3,4-3H]-	$\mathrm{HO_2C(CH_2)_2CH(NH_2)CO_2H}$	40–80	1	NET490
Glutamine, L-[3,4-3H(N)]-	$H_2NCO(C\mathbf{H}_2)_2C\mathbf{H}CNH_2CO_2H$	30–60	1	NET551
Glycine, [2-3H]-	$H_2NC\mathbf{H}_2CO_2H$	30–60	1	NET004
Leucine, L-[3,4,5-3H(N)]-	(CH <sub>3</sub> ) <sub>2</sub> CHCH <sub>2</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H	100–150	1	NET460
Leucine, L-[3,4,5-3H(N)]-	(CH <sub>3</sub> ) <sub>2</sub> CHCH <sub>2</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H	100–150	5	NET460A
Leucine, L-[4,5-3H(N)]-	(C <b>H</b> <sub>3</sub> )2C <b>H</b> CH <sub>2</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H	40–60	1	NET135H
Lysine, L-[4,5-3H(N)]-	$\mathrm{H_{2}NCH_{2}C}\mathbf{H_{2}CH_{2}CH_{2}CH(NH_{2})CO_{2}H.HCl}$	80–110	1	NET376
Methionine, L-[methyl- <sup>3</sup> H]-	$CH_3S(CH_2)_2CH(NH_2)CO_2H$	70–85	1	NET061X
Proline, L-[2,3-3H]-	HNCH <sub>2</sub> CH <sub>2</sub> C <b>H</b> CO <sub>2</sub> H	25–55	1	NET323
Proline, L-[2,3,4,5-3H]-	HNCH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CHCO <sub>2</sub> H	>75	1	NET483
Proline, L-[2,3,4,5-3H]-	HNCH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CHCO <sub>2</sub> H	85-130	5	NET483V
Serine, L-[³H(G)]-	HOC <b>H</b> <sub>2</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H	15–40	1	NET248
Tyrosine, L-[ring-3,5-3H]-	p-HOC <sub>6</sub> <b>H</b> <sub>4</sub> CH <sub>2</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H	40–60	1	NET127

## <sup>14</sup>C-Labeled Amino Acids

IH <sub>2</sub> ) <b>C</b> O <sub>2</sub> H I)NH( <b>C</b> H <sub>2</sub> ) <sub>3</sub> <b>C</b> H(NH <sub>2</sub> ) <b>C</b> O <sub>2</sub> H.HCI I(NH <sub>2</sub> ) <b>C</b> H <sub>2</sub> <b>S</b> ) <sub>2</sub>	>150 >300 >250	0.1	NEC266E NEC267E					
$I(NH_2)CH_2S)_2$		<u> </u>	NEC267E					
2 2 2	>250	2.22						
\ CU/NU \CO U		0.02	NEC465					
<sub>2</sub> / <sub>2</sub> Cn(Nn <sub>2</sub> )CO <sub>2</sub> n	>250	0.1	NEC290E					
CO₂H	>100	0.1	NEC276E					
CH(CH <sub>3</sub> )CH(NH <sub>2</sub> )CO <sub>2</sub> H	>300	0.05	NEC278E					
CH <sub>2</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H	>300	0.1	NEC279E					
CH <sub>2</sub> ) <sub>3</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H.HCl	>300	0.1	NEC280E					
CH(NH <sub>2</sub> )CO <sub>2</sub> H	>450	0.1	NEC284E					
H <sub>2</sub> CH <sub>2</sub> CHCO <sub>2</sub> H	>250	0.1	NEC285E					
H(NH <sub>2</sub> ) <b>C</b> O <sub>2</sub> H	>150	0.1	NEC286E					
IH <sub>2</sub> )CO <sub>2</sub> H	50-62	0.05	NEC827					
<sub>2</sub> <b>C</b> H(NH <sub>2</sub> ) <b>C</b> O <sub>2</sub> H	>450	0.05	NEC289E					
	N/A	0.1	NEC445E					
L-Glu, Gly, L-His, L-Ile, L-Leu, L-Lys, L-Phe, L-Pro, L-Ser, L-Thr, L-Tyr and L-Val								
	CH(CH <sub>3</sub> )CH(NH <sub>2</sub> )CO <sub>2</sub> H  CH <sub>2</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H  CH <sub>2</sub> ) <sub>3</sub> CH(NH <sub>2</sub> )CO <sub>2</sub> H.HCI  CH(NH <sub>2</sub> )CO <sub>2</sub> H  H <sub>2</sub> CH <sub>2</sub> CHCO <sub>2</sub> H  H(NH <sub>2</sub> )CO <sub>2</sub> H  H(NH <sub>2</sub> )CO <sub>2</sub> H	SO <sub>2</sub> H   >100	SO <sub>2</sub> H   >100   0.1					

Bold text denotes label position

Radioactivity Decay Calculator located at www.perkinelmer.com/Toolkit

# <sup>3</sup>H- and <sup>14</sup>C-Labeled Thymidines Thymidines for Proliferations Studies

Product Name	Specific Activity	Activity Conc. [mCi/mL]	Product No.
To study DNA proliferation rates			
Thymidine, [methyl-14C]- Steri-packaged in an aqueous solution. Not for human use.	40-60 mCi/mmol	0.1	NEC568
Thymidine, [methyl- <sup>14</sup> C]- Steri-packaged in aquesous solution Not for human use	50-62 mCi/mL	1	NEC568D
Thymidine, [methyl-³H]- Steri-packaged in an aqueous solution. Not for human use.	2 Ci/mmol	1	NET027A
Thymidine, [methyl-³H]- Steri-packaged in an aqueous solution. Not for human use.	6.7 Ci/mmol	1	NET027
Thymidine, [methyl-³H]- Packaged in ethanol:water (7:3). Not for human use	20 Ci/mmol	1	NET027E
Thymidine, [methyl-³H]- Steri-packaged in ethanol:water (2:98). Not for human use	23–27 Ci/mmol	1	NET027L
Thymidine, [methyl-³H]- Steri-packaged in ethanol:water (2:98). Not for human use	40–60 Ci /mmol	1	NET027W
Thymidine, [methyl-³H]- Steri-packaged in an aqueous solution. Not for human use.	20 Ci/mmol	1	NET027X
Thymidine, [methyl-³H]- Steri-packaged in an aqueous solution. Not for human use.	70–90 Ci/mmol	1	NET027Z
To study total nucleic acid proliferatio	n rates		
Thymidine, [2- <sup>14</sup> C]- Steri-packaged in an aqueous solution. Not for human use.	>50 mCi/mmol	0.1	NEC156
Thymidine, [6-³H]- Steri-packaged in an aqueous solution. Not for human use.	>10 Ci/mmol	1	NET355

### **Thymidines for DNA Probe Labeling**

Product Name	Specific Activity	Activity Conc. [mCi/mL]	Product No.
Deoxythymidine 5'-triphosphate, tetrasodium salt, [methyl-³H]-, Packaged in ethanol:water (1:1).	10–25 Ci/mmol	1	NET221H
Deoxythymidine 5'-triphosphate, tetrasodium salt, [methyl-³H]- Packaged in ethanol:water (1:1).	70–90 Ci/mmol	1	NET221X
Deoxythymidine 5'-triphosphate, tetrasodium salt, [methyl-³H]- Packaged in 10 mM tricine (pH 7.6).	70–90 Ci/mmol	2.5	NET221A
Deoxythymidine 5'-triphosphate, tetrasodium salt, [methyl, 1',2'-³H] Packaged in 10 mM tricine (pH 7.6).	90–120 Ci/mmol	2.5	NET520A

New products being added regularly. Visit  $www.perkinelmer.com/New Products \ for \ details.$ 

## Radionuclides

Radionuclide	Packaging & Form	Specific Activity	Fresh Lot Availability	Product No.
<b>Calcium-45</b> Symbol: <sup>45</sup> Ca Half Life: 163 d Radiation Type: beta	As calcium chloride in aqueous solution	>10 Ci/g	Every 4 weeks	NEZ013
<b>Chromium-51</b> Symbol: <sup>51</sup> Cr	As chromium chloride in 0.5 M HCl.	>50 Ci/g	Every four weeks	NEZ020
Half Life: 27.7 d Radiation Type: gamma	As sodium chromate in normal saline (pH 8–10) Steri-packaged; not for human use. 5mci/ml	400–1200 Ci/g	Every four weeks	NEZ030
	As sodium chromate in normal saline (pH 8–10). Steri-packaged; not for human use. 1mci/ml	400–1200 Ci/g	Every four weeks	NEZ030S
	As EDTA complex in 0.005 M EDTA (pH 7.0)	>50 Ci/g	Every four weeks	NEZ147
Cobalt-57 Symbol: <sup>57</sup> Co Half Life: 271 d Radiation Type: gamma	Packaged in 0.1M HCL	carrier free	Routinely available	NEZ022
Indium-111 Symbol: <sup>111</sup> In Half Life: 2.83 d Radiation Types: x-ray, gamma	As indium chloride in 0.05 M HCl. Not for human use.	380–415 Ci/mg	Every Friday	NEZ304 NEZ304A NEZ304B NEZ304C

Radionuclide	Packaging & Form	Specific Activity	Fresh Lot Availability	Product No
<b>Iodine-125</b> Symbol: <sup>125</sup> I	Packaged in 0.1 M NaOH (pH 12–14)	Carrier Free	Wednesday of every other week	NEZ033
Half Life: 60.14 d Radiation Types: x-ray, gamma	100 mCi/mL Packaged in 10 <sup>-5</sup> M NaOH (pH 8–11)	Carrier Free	Wednesday of every other week	NEZ033A
	>350 mCi/mL Packaged in 0.1 M NaOH (pH 12–14),	Carrier Free	Wednesday of every other week	NEZ033H
	>350 mCi/mL Packaged in 10 <sup>-5</sup> M NaOH (pH 8–11)	Carrier Free	Wednesday of every other week	NEZ033L
lodine-131 Symbol: <sup>131</sup> l Half Life: 8.04 d	Packaged in 0.1 M NaOH (pH 12–14).	>5 Ci/mg >5 Ci/mg	Every Monday Every Monday	NEZ035A NEZ035H
Radiation Types: beta, gamma	Packaged in 0.1 M NaOH			
<b>Iron-55</b> Symbol: <sup>55</sup> Fe Half Life: 2.7 y Radiation Type: x-ray	As ferric chloride in 0.5 M HCl.	>3 Ci/g	Routinely available	NEZ043
<b>Iron-59</b> Symbol: <sup>59</sup> Fe	As ferric chloride in 0.5 M HCl.	>5 Ci/g	Routinely available	NEZ037
Half Life: 44.6 d Radiation Types: beta, gamma	As ferrous sulfate in 0.05 M H <sub>2</sub> SO <sub>4</sub> . Steri-packaged; not for human use.	>5 Ci/g	Routinely available	NEZ049
Manganese-54 Symbol: <sup>54</sup> Mn Half Life: 312 d Radiation Type: gamma	Packaged in 0.5 M HCl.	>20 Ci/g	Routinely available	NEZ040

Radionuclide	Packaging & Form	Specific Activity	Fresh Lot Availability	Product N
<b>Phosphorus-32</b> Symbol: <sup>32</sup> P	As disodium phosphate in 1 mL water.	900–1100 mCi/mmol	Every Wednesday	NEX011
Half Life: 14.29 d Radiation Type: beta	As tetrasodium pyrophosphate in saline.	1–60 Ci/mmol	Routinely available	NEX019
	As orthophosphoric acid in 1 mL water.	8500–9120 Ci/mmol	Every Wednesday	NEX053
	>500 mCi/mL As orthophosphoric acid in water.	8500–9120 Ci/mmol	Every Friday	NEX053C
	10 mCi (370 MBq)/mL As orthophosphoric acid in water.	8500–9120 Ci/mmol	Every Wednesday	NEX053H
	150 mCi/mL As orthophosphoric acid in water.	8500–9120 Ci/mmol	Every Wednesday	NEX053S
	As orthophosphoric acid in 1 mL 0.02 M HCl.	8500–9120 Ci/mmol	Every Wednesday	NEX054
	dipotassium phosphate in 1 mL Water	900-1100 Ci/mmol	Routinely Available	NEX055
	As monopotassium phosphate in 1.0 mL water.	900–1100 mCi/mmol	Every Wednesday	NEX060
	As monosodium phosphate in 1.0 mL water.	900–1100 mCi/mmol	Every Wednesday	NEX063
Phosphorus-33 Symbol: <sup>33</sup> P Half Life: 25.4 d Radiation Type: beta	As orthophosphoric acid in 1.0 mL HCI-free water.	40–158 Ci/mg	Routinely available	NEZ080
<b>Rubidium-86</b> Symbol: <sup>86</sup> Rb Half Life: 18.66 d Radiation Types: beta, gamma	Packaged in water.	>1 Ci/g	Routinely available	NEZ072
<b>Sodium-22</b> Symbol: <sup>22</sup> Na Half Life: 2.6 y Radiation Types: positron, gamma	As NaCl in water.	100–2000 Ci/g	Routinely available	NEZ081
<b>5trontium-85</b> Symbol: <sup>85</sup> Sr Half Life: 64.85 d Radiation Type: gamma	Packaged in 0.5 M HCl.	>3 Ci/g	Routinely available	NEZ082
<b>Sulfur-35</b> Symbol: <sup>35</sup> S	As sodium sulfate in 1.0 mL water.	250-1000 mCi/mmol	Every 4 weeks	NEX041
Half Life: 87.4 d Radiation Type: beta	As sodium sulfate in 1.0 mL water.	1050-1600 Ci/mmol	Every 4 weeks	NEX041H
	As sulfuric acid in 1.0 mL water.	1050–1600 Ci/mmol	Every 4 weeks	NEX042
<b>Zinc-65 Radionuclide</b> Symbol: <sup>65</sup> Zn Half Life: 244d Radiation Type: beta, gamma	Packaged in 0.5M HCl	>1 Ci/g	Routinely Available	NEZ111

## Yttrium-90 Chloride Radionuclides/Lutetium-177 Chloride Radionuclides

### Therapeutic Radionuclides

PerkinElmer's Yttrium-90 and Lutetium-177 are being combined with various molecules like monoclonal antibodies and peptides to create potential "Smart Drugs" that can specifically target a number of cancers. Promising therapeutic formulations are currently being investigated in research and clinical trials for several types of cancer such as ovarian, lung, breast, colon, prostate, brain, and non-Hodgkin's lymphoma. Through its worldwide distribution capabilities, PerkinElmer can assure delivery of these short-lived radionuclides to many areas of the world soon after production.

Both Yttrium-90 and Lutetium-177 nuclides feature:

- High purity: low levels of contaminants.
- High concentration: can be diluted to meet specific lab requirements.
- Excellent labeling efficiency: high incorporation.
- Fresh lots weekly: reliable production schedule with daily calibration schedule.
- Convenient daily delivery: next day in the U.S. and 2–3 days in Europe.
- NENSure<sup>™</sup> vial packaging: safe and secure; maximizes recovery of material while ensuring minimal personal exposure. Other vials are available upon request.

#### Yttrium-90 Chloride Radionuclide

#### For research and investigational purposes only

PerkinElmer produces and distributes ultra-pure Yttrium-90 radionuclide, which is extracted from Strontium-90 using a patented process licensed exclusively to PerkinElmer. Every lot of Yttrium-90 is quality tested to ensure consistency. Documentation of test results at release, such as the ICP analysis for metals contamination, is provided with each shipment.

Product Name	Specific Activity	Calibration Day	Activity Concentration on Calibration Day [mCi/mL]	Product No.
Yttrium-90 Radionuclide	~500 Ci (18.5 TBq)/mg	Monday	Please inquire	NEZ306S000MC
Sterile and non-pyrogenic		Tuesday	Please inquire	NEZ306AS000MC
Weekly fresh lots		Wednesday	Please inquire	NEZ306BS000MC
Half Life: 2.67 d		Thursday	Please inquire	NEZ306CS000MC
Yttrium-90 Radionuclide	~500 Ci (18.5 TBq)/mg	Monday	Please inquire	NEZ306000MC
Radiochemical grade		Tuesday	Please inquire	NEZ306A000MC
Weekly fresh lots		Wednesday	Please inquire	NEZ306B000MC
Half Life: 2.67 d		Thursday	Please inquire	NEZ306C000MC

### **Lutetium-177 Chloride Radionuclide**

#### For research and investigational purposes only

Lutetium-177 is used in the same way as Yttrium-90; however it may be used in a slightly different manner. Lutetium-177 has a shorter radius of penetration than Yttrium-90, making it an ideal candidate for radioimmunotherapy for smaller, soft tumors. In addition, Lutetium-177 is a beta and gamma emitter. It can be used for therapy and imaging studies unlike Yttrium-90, which is a pure beta emitter and can only be used for therapy. Every lot of Lutetium-177 is quality tested to ensure consistency. Documentation of test results at release, such as the ICP analysis for metals contamination, is provided with each shipment.

Product Name	Specific Activity	Calibration Day	Activity Concentration on Calibration Day [mCi/mL]	Product No.
Lutetium-177 Radionuclide	~20 Ci (0.74 TBq)/µg	Thursday	Please inquire	NEZ307000MC
Radiochemical grade		Friday	Please inquire	NEZ307A000MC
Weekly fresh lots		Monday	Please inquire	NEZ307B000MC
Half Life: 6.71 d		Tuesday	Please inquire	NEZ307C000MC
		Wednesday	Please inquire	NEZ307D000MC

## **Radioimmunoassay Kits**

Our [³H]- and [¹²⁵l]- RIA kits are fully validated and contain all reagents required to run your assays. For laboratory use. Research chemicals for reseach purposes only.

Product Name	Package Size	Product No.
11-Dehydrothromboxane B $_2$ [ $^{125}$ I]- RIA Kit Shipped ambient. Store at 2–8 °C.	250 assay tubes	NEK042A001KT
6-Keto-Prostaglandin $F_{1\alpha}$ [125]- RIA Kit	125 assay tubes	NEK025001KT
Shipped on blue ice. Store at 2–8 °C.	250 assay tubes	NEK025A001KT
Cyclic AMP [1251]- Tracer Plus Carrier Serum (cAMP [1251]- tracer shipped separately.) Shipped ambient. Store at 2–8 °C.	100 assay tubes	NEK035001EA
Cyclic AMP, [125]- RIA Kit Shipped ambient. Store at 2–8 °C.	200 assay tubes	NEK033001KT
Cyclic GMP, [125]]- RIA Kit Shipped ambient. Store at 2–8 °C.	200 assay tubes	NEX133001KT
Inositol 1,4,5-trisphosphate, [³H]- Radioreceptor Assay Kit Shipped on blue ice. Store at 2–8 °C.	192 assay tubes	NEK064001KT
Prostaglandin E <sub>2</sub> [ <sup>125</sup> I]- RIA Kit	125 assay tubes	NEK020001KT
(c Prostaglandin $E_2[^{125}]$ - tracer shipped separately.) Shipped on blue ice. Store at 2–8 °C.	250 assay tubes	NEK020A001KT
Thromboxane B <sub>2</sub> [1251]- RIA Kit	125 assay tubes	NEK024001KT
Shipped on blue ice. Store at 2–8 °C.	250 assay tubes	NEK024A001KT



## Technical, Safety & Storage Information



### **Radiochemicals Classifications**

Radiochemicals in this catalog are listed by the full chemical name (salt forms are listed as the parent compound). Following the full chemical name is a bracket, separated from the name by a comma and space. The information within the bracket describes the location and type of radioactive label. The bracket is followed by a hyphen.

Everything between the comma and space referenced above and the hyphen following the bracket would be placed before the chemical name or before the labeled unit in order to convert to the "square bracket preceding" system. For example, Glutamic acid, L-[14C(U)]- in this catalog may be read as L-[14C(U)]Glutamic acid.

The isotope employed is designated by its chemical symbol with the mass number shown as a superscript preceding the symbol.

### **NEN Radiochemicals Packaging**

### **Specifically Labeled Compounds**

This designation is used when all labeled positions are identified and the radioactivity at these positions is greater than 95% of the total incorporated into the compound. When more than one position is labeled, uniform or even distribution is not implied.

### **Uniformly Labeled (U) Compounds**

This designation is reserved for compounds labeled in all positions in a uniform or nearly uniform pattern. This category includes compounds prepared by biosynthesis from carbon dioxide, [14C], or from a uniformly labeled intermediate.

### Nominally Labeled (N) Compounds

This designation is used when the method of preparation requires some (usually a significant amount) of the label to be at a specific site or sites, but no further information is available on the extent of labeling (if any) at other positions.

### **Generally Labeled (G) Compounds**

This designation is reserved for compounds (usually tritiumlabeled) in which there is a random (i.e., non-uniform and undetermined) distribution of radioactivity at various positions. Under the conditions that lead to random labeling, many potential sites for labeling usually contain no radioactivity.

#### Follow these precautions when receiving and opening a package containing radiochemicals:

- Inspect all packages upon receipt to ensure that they are free from damage and that surface radiation and contamination are within specified limits.
- Open the package in a designated area, while wearing protective gloves.
- Inspect the contents of the vial and verify the radionuclide, quantity, and compound on the vial label and packing slip.
- When opening the vial, be aware of the potential for overpressure. Carefully open the vial in a fume-hood and monitor to confirm contamination control.

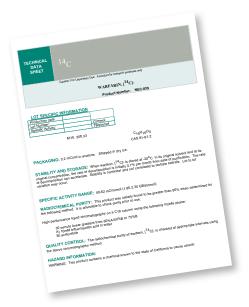
Visit www.perkinelmer.com/NENSure to view our NENSure Packaging video.

### Find your technical data sheet at: www.perkinelmer.com/COA

### **Technical Data Accompanying Radiochemicals**

PerkinElmer's quality control program includes the preparation of detailed Certificates of Analysis (COA), also known as Technical Data (TD) sheets. These documents are available online at <a href="https://www.perkinelmer.com/COA">www.perkinelmer.com/COA</a> and contain the following types of information:

- Initial radiochemical purity
- Chemical purity (where applicable)
- Structural formula with label position (where applicable)
- Method of synthesis (with pertinent references)
- Recommended storage conditions
- Approximate rate of decomposition under these conditions
- Information for purification after prolonged storage



### **Storage & Handling**

PerkinElmer formulates its NEN Radiochemicals to minimize further processing by researchers. However, radiochemicals decompose over time. Therefore, they require careful handling and proper storage. Read the Technical Data sheet carefully before using or storing your NEN Radiochemical.

Here are ways to maximize the use of NEN Radiochemicals:

- Schedule your purchases to avoid prolonged storage, and use the product as soon as possible after taking delivery.
- For radiochemicals packaged in an ampoule, refer to the Technical Data sheet instructions for opening the ampoule, as well as for the subsequent storage of the product.
- Minimize the number of times the primary container is opened, and reseal the container immediately after use. If a compound will be used several times, aliquot the required amounts to separate storage vials.
- Many buffers and salts used in biological systems are harmful to the radiochemical. Use clean syringes and pipettes when withdrawing aliquots from the primary container.
- If the compound is light-sensitive, handle it under a red light and cover the primary container with foil when storing. Or store the compound in the UV-absorbing version of the NENSure vial.
- If the compound is air- or water-sensitive, flush the primary container with argon after use.
- Store at low temperatures, but do not freeze unless specifically recommended on the Technical Data sheet.
- Store at the lowest usable specific activity.
- Store in the most stable chemical form.
- When possible, dissolve the compound in a solvent that has been specially purified. Most common laboratory solvents have trace contaminants that will accelerate radiodecomposition.
- Recheck your label ed compounds for purity at appropriate intervals. Every labeled compound stored for more than six months should be checked for radiopurity; some compounds should be checked more often. If in doubt, reanalyze.

PerkinElmer's Guide to the Safe Handling of Radioactive Materials in Research contains comprehensive information regarding the storage and handling of radiochemicals. To download a copy of this guide visit www.perkinelmer.com/safehandleguide.

## Radionuclide Safe Handling Guides

Our Safe Handling Guides contain general safe handling precautions and procedures, as well as physical data and decay charts. Our Safe Handling Guide is located at www.perkinelmer.com/safehandleguide.

While we believe the information to be accurate, regulatory requirements may change and information contained is not tailored to individual needs. Please consult a radiation protection specialist for specific applications.

## **Phosphorus-32**

DAYS	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
0	1.000	0.976	0.953	0.930	0.908	0.886	0.865	0.844	0.824	0.804
5	0.785	0.766	0.748	0.730	0.712	0.695	0.678	0.662	0.646	0.631
10	0.616	0.601	0.587	0.573	0.559	0.545	0.532	0.520	0.507	0.495
15	0.483	0.472	0.460	0.449	0.438	0.428	0.418	0.408	0.398	0.388
20	0.379	0.370	0.361	0.353	0.344	0.336	0.328	0.320	0.312	0.305
25	0.297	0.290	0.283	0.277	0.270	0.264	0.257	0.251	0.245	0.239
30	0.233	0.228	0.222	0.217	0.212	0.207	0.202	0.197	0.192	0.188
35	0.183	0.179	0.174	0.170	0.166	0.162	0.158	0.155	0.151	0.147
40	0.144	0.140	0.137	0.134	0.130	0.127	0.124	0.121	0.118	0.116
45	0.113	0.110	0.107	0.105	0.102	0.100	0.098	0.095	0.093	0.091
50	0.088	0.086	0.084	0.082	0.080	0.078	0.077	0.075	0.073	0.071
55	0.069	0.068	0.066	0.065	0.063	0.062	0.060	0.059	0.057	0.056
60	0.054	0.053	0.052	0.051	0.049	0.048	0.047	0.046	0.045	0.044

<sup>32</sup>P 14.29 d β-1.71 No γ E 1.71

## **Phosphorus-33**

DAYS	0	1	2	3	4	5	6	7	8	9
0	1.000	0.973	0.947	0.921	0.897	0.872	0.849	0.826	0.804	0.782
10	0.761	0.741	0.721	0.701	0.683	0.664	0.646	0.629	0.612	0.595
20	0.579	0.564	0.549	0.534	0.520	0.506	0.492	0.479	0.466	0.453
30	0.441	0.429	0.418	0.406	0.395	0.385	0.374	0.364	0.355	0.345
40	0.336	0.327	0.318	0.309	0.301	0.293	0.285	0.277	0.270	0.263
50	0.256	0.249	0.242	0.236	0.229	0.223	0.217	0.211	0.205	0.200
60	0.195	0.189	0.184	0.179	0.174	0.170	0.165	0.161	0.156	0.152
70	0.148	0.144	0.140	0.136	0.133	0.129	0.126	0.122	0.119	0.116
80	0.113	0.110	0.107	0.104	0.101	0.098	0.096	0.093	0.091	0.088
90	0.086	0.084	0.081	0.079	0.077	0.075	0.073	0.071	0.069	0.067
100	0.065	0.064	0.062	0.060	0.059	0.057	0.055	0.054	0.053	0.051
110	0.050	0.048	0.047	0.046	0.045	0.043	0.042	0.041	0.040	0.039
120	0.038	0.037	0.036	0.035	0.034	0.033	0.032	0.031	0.030	0.030

33P 25.4 d β-0.249 No γ E 0.249

Visit www.perkinelmer.com/Toolkit to use our online Radioactive Decay Calculator.

## **Radionuclide Decay Tables**

## **lodine-125**

DAYS	0	2	4	6	8	10	12	14	16	18
0	1.000	0.977	0.955	0.933	0.912	0.891	0.871	0.851	0.831	0.812
20	0.794	0.776	0.758	0.741	0.724	0.707	0.691	0.675	0.660	0.645
40	0.630	0.616	0.602	0.588	0.574	0.561	0.548	0.536	0.524	0.512
60	0.500	0.489	0.477	0.467	0.456	0.445	0.435	0.425	0.416	0.406
80	0.397	0.388	0.379	0.370	0.362	0.354	0.345	0.338	0.330	0.322
100	0.315	0.308	0.301	0.294	0.287	0.281	0.274	0.268	0.262	0.256
120	0.250	0.244	0.239	0.233	0.228	0.223	0.218	0.213	0.208	0.203
140	0.198	0.194	0.189	0.185	0.181	0.177	0.173	0.169	0.165	0.161
160	0.157	0.154	0.150	0.147	0.144	0.140	0.137	0.134	0.131	0.128
180	0.125	0.122	0.119	0.117	0.114	0.111	0.109	0.106	0.104	0.102
200	0.099	0.097	0.095	0.093	0.090	0.088	0.086	0.084	0.082	0.081
220	0.079	0.077	0.075	0.073	0.072	0.070	0.069	0.067	0.065	0.064
240	0.063	0.061	0.060	0.058	0.057	0.056	0.054	0.053	0.052	0.051

125I 60.14 d EC γ- 0.035 x-ray 0.027 E 0.177

## Chromium-51

DAYS	0	1	2	3	4	5	6	7	8	9
0	1.000	0.975	0.951	0.928	0.905	0.882	0.861	0.839	0.819	0.798
10	0.779	0.760	0.741	0.722	0.705	0.687	0.670	0.654	0.638	0.622
20	0.606	0.591	0.577	0.563	0.549	0.535	0.522	0.509	0.496	0.484
30	0.472	0.461	0.449	0.438	0.427	0.417	0.406	0.396	0.387	0.377

51Cr 27.7 d EC γ 0.249 E 0.752

## Sulfur-35

DAYS	0	3	6	9	12	15	18	21	24	27
0	1.000	0.976	0.954	0.931	0.909	0.888	0.867	0.847	0.827	0.807
30	0.788	0.770	0.752	0.734	0.717	0.700	0.683	0.667	0.652	0.636
60	0.621	0.607	0.592	0.579	0.565	0.552	0.539	0.526	0.514	0.502
90	0.490	0.478	0.467	0.456	0.445	0.435	0.425	0.415	0.405	0.395
120	0.386	0.377	0.368	0.359	0.351	0.343	0.335	0.327	0.319	0.312
150	0.304	0.297	0.290	0.283	0.277	0.270	0.264	0.258	0.252	0.246
180	0.240	0.234	0.229	0.223	0.218	0.213	0.208	0.203	0.198	0.194
210	0.189	0.185	0.180	0.176	0.172	0.168	0.164	0.160	0.156	0.153
240	0.149	0.146	0.142	0.139	0.136	0.132	0.129	0.126	0.123	0.120
270	0.118	0.115	0.112	0.109	0.107	0.104	0.102	0.099	0.097	0.095
300	0.093	0.090	0.088	0.086	0.084	0.082	0.080	0.078	0.077	0.075
330	0.073	0.071	0.070	0.068	0.066	0.065	0.063	0.062	0.060	0.059
360	0.058	0.056	0.055	0.054	0.052	0.051	0.050	0.049	0.048	0.046

35 § 87.4 d β 0.167 No γ E 0.167

## Tritium

							MONTH	IS					
	_	0	1	2	3	4	5	6	7	8	9	10	11
	0	1.000	0.995	0.991	0.986	0.981	0.977	0.972	0.968	0.963	0.959	0.954	0.950
	1	0.945	0.941	0.936	0.932	0.928	0.923	0.919	0.915	0.910	0.906	0.902	0.898
	2	0.893	0.889	0.885	0.881	0.877	0.873	0.869	0.865	0.860	0.856	0.852	0.848
	3	0.844	0.841	0.837	0.833	0.829	0.825	0.821	0.817	0.813	0.810	0.806	0.802
S	4	0.798	0.794	0.791	0.787	0.783	0.780	0.776	0.772	0.769	0.765	0.762	0.758
YEARS	5	0.754	0.751	0.747	0.744	0.740	0.737	0.733	0.730	0.727	0.723	0.720	0.716
۲	6	0.713	0.710	0.706	0.703	0.700	0.697	0.693	0.690	0.687	0.684	0.680	0.677
	7	0.674	0.671	0.668	0.665	0.661	0.658	0.655	0.652	0.649	0.646	0.643	0.640
	8	0.637	0.634	0.631	0.628	0.625	0.622	0.619	0.616	0.614	0.611	0.608	0.605
	9	0.602	0.599	0.597	0.594	0.591	0.588	0.585	0.583	0.580	0.577	0.575	0.572
	10	0.569	0.567	0.564	0.561	0.559	0.556	0.553	0.551	0.548	0.546	0.543	0.541
	11	0.538	0.535	0.533	0.530	0.528	0.526	0.523	0.521	0.518	0.516	0.513	0.511
	12	0.509	0.506	0.504	0.501	0.499	0.497	0.494	0.492	0.490	0.487	0.485	0.483

 $^{3}H$  12.28 v  $\beta$ - 0.019 No  $\gamma$  E 0.019

 $Visit \ {\bf www.perkinelmer.com/Toolkit}\ to\ use\ our\ online\ Radioactive\ Decay\ Calculator.$ 

## Common Radiochemical Measurements & Conversions

### **International System of Units**

The International System of Units (Système Internationale, or SI) adopted the becquerel (Bq) as the unit for radiation measurement in 1975, acting on the recommendation of the International Commission of Radiation Units and Measurements (ICRU).

#### 1 Bq = 1 disintegration per second = $2.7 \times 10^{-11}$ curie (Ci)

In this catalog's radiochemical product listing, curies are listed first, followed by becquerels, which are shown in parentheses. We have included several tables and formulas to assist you in using your preferred unit of measure.

### **Common Prefixes for SI Units**

These SI prefixes are used to form decimal multiples and submultiples of units.

Prefix	Symbol	Factor
exa	E	1018
penta	Р	1015
tera	T	1012
giga	G	10 <sup>9</sup>
mega	М	10 <sup>6</sup>
kilo	k	10 <sup>3</sup>

Prefix	Symbol	Factor
milli	m	10-3
micro	μ	10 <sup>-6</sup>
nano	n	10 <sup>-9</sup>
pico	р	10 <sup>-12</sup>
femto	f	10 <sup>-15</sup>
atto	a	10 <sup>-18</sup>



### **Conversion Tables & Formulas**

#### SI & Non-SI Unit Conversions

Physical quantity	To convert from	to	Multiply by
Activity	becquerel (Bq)	curie	2.7 x 10 <sup>-11</sup>
	curie (Ci)	becquerel	3.7 x 10 <sup>10</sup>
Absorbed dose	gray (Gy)	rad	100
	rad (rad)	gray	0.01
Dose equivalent	sievert (Sv)	rem	100
	rem (rem)	sievert	0.01

## **Curie to Becquerel Conversions**

### (Becquerel equivalents from 1 microcurie to 100 curies)

Conversion			
From	То	From	To
μCi	kBq	μCi	kBq
mCi	MBq	mCi	MBq
Ci	GBq	Ci	GBq
1	37	35	1295
2	74	40	1480
3	111	45	1665
4	148	50	1850
5	185	55	2035
6	222	60	2220
7	259	65	2405
8	296	70	2590
9	333	75	2775
10	370	80	2960
15	555	85	3145
20	740	90	3330
25	925	95	3515
30	1110	100	3700

#### Millicurie Equivalents

1,000 millicuries (mCi) = 1 curie (Ci) 1,000 microcuries ( $\mu$ Ci) = 1 millicurie (mCi) 250 microcuries ( $\mu$ Ci) = 0.25 millicurie (mCi) 100 microcuries ( $\mu$ Ci) = 0.10 millicurie (mCi) 50 microcuries ( $\mu$ Ci) = 0.05 millicurie (mCi) 1 microcurie ( $\mu$ Ci) = 0.001 millicurie (mCi)

#### Activity Equivalents: Becquerel or Curie to DPM to DPS

1 becquerel = 1 DPS 1 curie = 2.22 x 10<sup>12</sup> DPM = 3.7 x 10<sup>10</sup> DPS 1 millicurie = 2.22 x 10<sup>9</sup> DPM = 3.7 x 10<sup>7</sup> DPS 1 microcurie = 2.22 x 10<sup>6</sup> DPM = 3.7 x 10<sup>4</sup> DPS

### Time Equivalents: Day to Minutes to Seconds

1 day =  $1.44 \times 10^3$  mins =  $8.64 \times 10^4$  secs 1 year =  $5.26 \times 10^5$  mins =  $3.16 \times 10^7$  secs

### Mass Equivalents: Grams to Moles DNA

1  $\mu g$  of 1,000 bp DNA = 1.52 pmole (3.03 pmol of ends) 1  $\mu g$  of pBR322 DNA = 0.36 pmole DNA 1 pmole of 1,000 bp DNA = 0.66  $\mu g$ 1 mole of pBR322 DNA = 2.8  $\mu g$ 

## **Vial Packaging**

### **NENSure Vial Packaging**

With the revolutionary NENSure<sup>TM</sup> packaging system, PerkinElmer established new safety and convenience standards for the shipment of radiochemicals. These include <sup>32</sup>P and <sup>33</sup>P-labeled nucleotides; <sup>32</sup>P, <sup>33</sup>P, <sup>35</sup>S, <sup>125</sup>I and <sup>131</sup>I radionuclides; <sup>35</sup>S-labeled amino acids; and <sup>3</sup>H-, <sup>125</sup>I- and <sup>14</sup>C-labeled compounds. NENSure vials seal and reseal positively to ensure safe shipment and storage, allow unobstructed view of the product, and unscrew easily for safe and convenient access.

Each NENSure vial is shipped in a sturdy, easy-to-use container, and is available with an optional integral lead shield. For easy opening, the container lid has an octagonal recess to place over the vial cap. For maximum recovery of product, NENSure vials have a conical plastic or glass V-insert. Light-sensitive compounds are packaged in a UV-absorbing version of the NENSure vial.



Visit www.perkinelmer.com/NENSure to view our NENSure Packaging video.

### Using a syringe to remove contents from NENSure vials

A 1.5 inch (38 mm) needle will reach the bottom of the V-insert when inserted directly through the septum of a 0.9 mL or 2.2 mL NENSure vial. A 2.25 inch (57 mm) needle is required for the 5 mL vial. The needle guide was designed to facilitate the use of microsyringes, such as the Hamilton syringe; however, it will accommodate needles of 22 gauge or finer. When using the needle guide, add 0.5 inches (12.7 mm) to the required needle length.

To expose the septum:

- 1. Unscrew the lid of the outer container.
- 2. Slide aside or remove the dust cover on the cap.
- 3. If required, install a charcoal trap directly through the sentum
- 4. Insert the syringe needle directly through the septum.

To use the needle guide:

- 1. Slide aside and remove the dust cover.
- 2. Insert and press the needle guide into the exposed opening.
- 3. Install a charcoal trap through the side opening of the quide until it just penetrates the septum.
- 4. Fit the syringe needle into the center hole of the guide and push firmly through the septum into the vial.

# Using a pipette to remove contents from NENSure vials

To remove the cap:

- 1. Unscrew the lid of the outer container.
- 2. Invert the lid and position it so that the built-in octagonal wrench engages the cap.
- 3. Turn the wrench counterclockwise to remove the cap.

To replace the cap:

- 1. Position the cap on the vial.
- 2. Turn the wrench clockwise to screw the cap in place, ensuring a tight seal.

#### Installing a charcoal trap in NENSure vials

Prior to removing the vial contents or adding reagents, PerkinElmer recommends installing a charcoal trap (NEXO33T) to vent any volatiles that may have built up during shipment. This precautionary step is particularly important when opening <sup>35</sup>S-labeled compounds or <sup>125</sup>I nuclides.

The charcoal trap can be installed either directly through the septum or through the side opening of the needle guide (refer to figure and instructions).

## **Other Vial Packaging Information**

#### Combi-Vial

The Combi-Vial is a multidose, wide-mouthed glass vial (5 mL or 10 mL) with a wide base. Each Combi-Vial is enclosed in a double-pouched envelope containing all pertinent data sheets. The double-pouched envelope is inserted into a securitainer (a plastic container with easy-opening tear tab) that contains absorbent material. The securitainer is then packaged in a polystyrene carton that is itself packaged in a corrugated box.

For maximum security against leakage, compounds dissolved in organic solvents are shipped with a multi-dose closure that is plugged with a rubber septum lined with Teflon® fluorocarbon resin. Many of the compounds dissolved in water or dilute acid are shipped with a multi-dose closure sealed with a rubber plug.

- Use a syringe to extract the contents of a Combi-Vial directly through the septum or rubber plug.
- For multiple withdrawals, or withdrawal by pipette, the multi-dose closure can be easily removed by pulling the tear tab.
- Thereafter, the Combi-Vial may be reclosed with the supplied screw-cap.

#### Combi-V-Vial

The Combi-V-Vial is the standard Combi-Vial with a long, tapered V-insert. V-inserts allow small volumes of liquid to gravitate to the apex of the "V" for maximum accessibility. The Combi-V-Vial is available in two sizes: a 0.7 mL vial made of glass or a 1.0 mL vial made of polypropylene. The Combi-V-Vial is sealed with a specially designed, Teflon®-lined septum.

### **Screw-Cap Bottle**

Used to package many solid products, this 2-dram glass vial features a Teflon®-lined screw-cap closure, and is sealed with tape or a heat-shrink seal.

#### **Serum Bottle**

The serum bottle is used for products supplied in large volumes of sterile water. It is shipped with a multidose closure and a rubber plug. Availability is specified in the product listing.

Note: This package is not certified as sterile and pyrogen-free. It is not suitable for organics.

### **Sealed Through-Joint Ampoules**

These glass ampoules are used for packaging volatile solutions that are aliquoted at frequent intervals, such as solutions of labeled acetic anhydride in benzene. The ampoules feature a standard taper joint and a flame-sealed top. A standard taper cap is supplied to close the ampoule for storage after the seal is broken. Ampoules are suitable for use as reaction vessels when a transfer of the contents is not desired. Ampoules are available in two sizes: a small ampoule for solutions of 0.5 mL or less or a larger ampoule for solutions up to 3 mL. This vessel is calibrated to show the approximate content volume.

Instructions for opening the ampoule are included in the Technical Data sheet that accompanies the product.

#### **Breakseal Tubes**

Volatile liquids or gases that are to be transferred into a vacuum system are packaged in glass breakseal tubes. These tubes are specially designed to fit onto a vacuum line prior to opening. They are available in several sizes, according to volume and pressure requirements. A standard taper joint can be attached to the breakseal tube upon request.

#### **Sealed Ampoules**

Flame-sealed ampoules with constricted necks are available in a wide variety of sizes, from 1 mL to 100 mL. Instructions for opening the ampoule are included in the Technical Data sheet that accompanies the product.

### **Custom Packaging**

Lyophilization or special containers, solvents, concentrations, or conditions (e.g., packaging under argon or nitrogen) can be provided at additional cost, when available. Additional precautions that substantially reduce product bioburden or enhance product stability can also be provided. Such products are designated "steri-packaged" in this catalog.

PerkinElmer makes no warranty, expressed or implied, with respect to the sterility or pyrogenicity of such products, including any warranty of merchantability or fitness for any particular purpose. These are research products, and are not intended for use in humans. If use in humans is planned, contact your PerkinElmer Customer Care Representative for guidance.

## **Guide to Opening PerkinElmer Glass Sealed Containers**



### Introduction

Glass sealed containers are utilized in the packaging of volatile liquids, gases, material sensitive to environmental conditions and small volumes of liquids. PerkinElmer manufactures three basic packages: (1) break-seal tubes which are specifically designed to fit onto vacuum lines prior to opening (Figures A & B), (2) flame sealed glass ampoules with constricted necks for convenient opening (Figures C & D) and (3) flame sealed glass ampoules with septum for convenient access (Figure E). These containers are supplied sealed under vacuum or at atmospheric pressure and procedures for opening must take this into consideration. To minimize problems opening the various types of containers, careful attention to the procedures outlined below is suggested.



#### Opening instructions for break-seal tubes (A, B) with vacuum line

- 1. Gently insert a small cylindrical piece of iron (hammer), preferably sealed in glass to minimize interaction, into the open end of the tube, allowing it to rest on the break-seal.
- 2. Connect the tube into the vacuum system with a flame seal or connector.
- 3. Cool the base of the tube by inserting it into liquid nitrogen or dry ice-acetone and evacuate the system. A graded application of vacuum is preferable to prevent unwanted movement of the hammer.
- 4. Break the seal by raising the hammer with a magnet and allowing it to fall onto the fragile glass tip.
- 5. Transfer may now be accomplished by standard procedures by opening to the vacuum line.

# Opening instructions for break-seal tubes (A, B) without vacuum line (at atmospheric pressure)

- 1. Cool sample with liquid nitrogen or dry-ice acetone in order to remove material from inside walls and concentrate at the base.
- 2. If dilution is desired, the solution can be added to the upper part of the break-seal (not all solution added will rinse down into the bottom portion of the break-seal).
- 3. Carefully break the seal by inserting a glass stirring rod through the open top of the tube, allowing most of the diluents to drain into the bottom portion.
- 4. Allow sample to return to room temperature. Access to the contents at atmospheric pressure may be made with a pipette or long syringe needle after scoring and snapping the tube below the break-seal

## **Guide to Opening PerkinElmer Glass Sealed Containers**





### Opening instructions for glass ampoules (C, D)

- 1. Concentrate the contents of the ampoule into the base by either cooling or tapping gently for solids.
- 2. Type C ampoules are pre-scored at their colored band. They can be opened by holding the ampoule away from your body between the thumb and the forefinger of each hand and snapping briskly (we recommend wearing gloves).
- 3. Type D ampoules must be scored with a file before snapping. They can be opened by holding the ampoule away from your body between the thumb and forefinger of each hand and snapping briskly (we recommend wearing gloves).



### Opening instructions for glass ampoules (E)

- 1. Concentrate the contents of the ampoule into the base by either cooling or tapping gently for solids.
- 2. Support the glass ampoule securely in the palm of one hand.
- 3. With your other hand, take an 18 g needle and pierce the septum on the top of the black cap.
- 4. Let the needle rest against the glass diaphragm and carefully withdraw the needle 0.25" (making sure to keep the head of the needle between the septum and glass diaphragm).
- 5. While continuing to support the glass ampoule in the palm of one hand, pierce the glass diaphragm with the needle.



# Radiochemicals Product Listing

Product	Size	Product No.
A-85380, [1251]-	10 μCi (370 kBq)	NEX413010UC
2200 Ci (81.4 TBq)/mmol	25 μCi (925 kBq)	NEX413025UC
Packaged in ethanol.		
Shipped in dry ice. Store at -20 °C.		
Fresh upon request.	40 6' (270 LP.)	NEVOAGOAGUE
AB-MECA, [1 <sup>25</sup> I]-, (4-amino-3-[1 <sup>25</sup> I]iodobenzyl-5'-N-) 2200 Ci (81.4 TBg)/mmol	10 μCi (370 kBq) 50 μCi (1.85 MBg)	NEX312010UC NEX312050UC
Packaged in methanol.	30 μCI (1.63 ΙΝΙΒΥ)	NEX3120300C
Shipped ambient. Store at 2–8 °C.		
Fresh lot: Second Monday of each month.		
Abscisic acid, DL-cis,trans- [G-3H]	50 μCi (1.85 MBq)	NET1184050UC
35–65 Ci (1.30 –2.41 TBq)/mmol		
0.2 mCi (7.4 MBq)/mL		
Packaged in ethanol		
Shipped in dry ice. Store at –20°C.	40 01 (07010.)	
ACTH, (1-39) Tyr <sup>2</sup> -[ <sup>125</sup> I]-	10μCi (370kBq)	NEX342010UC
2200 Ci (81.4TBq)/mmol Packaged lyophilized	50μCi (1.85MBq)	NEX342050UC
Shipped Ambient. Store at 4°C or below.		
Fresh Lot: Third Monday of each month		
ACTH, (1-39) Tyr <sup>23</sup> -[ <sup>125</sup> I]-	10μCi (370kBg)	NEX165010UC
2200 Ci (81.4TBq)/mmol	50μCi (1.85MBq)	NEX165050UC
Packaged lyophilized		
Shipped Ambient. Store at 4°C or below.		
Fresh Lot: Third Monday of each month		
Acetic acid, sodium salt, [1-14C]-	1 mCi (37 MBq)	NEC084A001MC
50–62 mCi (1.85–2.29 GBq)/mmol 0.2 mCi (7.4 MBq)/mL		
Steri-packaged in aqueous solution.		
Shipped ambient.		
Acetic acid, sodium salt, [1-14C]-	1 mCi (37 MBq)	NEC084H001MC
45–60 mCi (1.66–2.22 GBq)/mmol	, , , ,	
1 mCi (37 MBq)/mL		
Packaged in ethanol.		
Shipped ambient. Store at 2–8 °C.	50 51/4 55 45	
Acetic acid, sodium salt, [1,2- <sup>14</sup> C]-	50 μCi (1.85 MBq)	NEC553050UC
45–60 mCi (1.66–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC553250UC NEC553001MC
Packaged in ethanol.	Tiller (37 Wbq)	NECSSSOOTIVIC
Shipped ambient. Store at -20 °C.		
Acetic acid, sodium salt, [2-14C]-	1 mCi (37 MBg)	NEC085H001MC
45–60 mCi (1.66–2.22 GBq)/mmol	•	
1 mCi (37 MBq)/mL		
Packaged in ethanol.		
Shipped ambient. Store at 2–8 °C.	F (C: /405.14D.)	NETOODOGENIC
Acetic acid, sodium salt, [3H]-	5 mCi (185 MBq)	NET003005MC
75–150 mCi (2.78–5.55 GBq)/mmol 10 mCi (370 MBq)/mL	25 mCi (925 MBq)	NET003025MC
Packaged in ethanol.		
Shipped ambient. Store at -20 °C.		
Acetic acid, sodium salt, [³H]-	5 mCi (185 MBq)	NET003H005MC
2–5 Ci (74–185 GBq)/mmol	25 mCi (925 MBq)	NET003H025MC
10 mCi (370 MBq)/mL		
Packaged in ethanol.		
Shipped ambient. Store at -20 °C.		
Acetyl-5-methoxy-tryptamine		
See Melatonin.		

# Ac–Ad

Product	Size	Product No.
Acetyl coenzyme A, [acetyl-1-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.2 mCi (0.74 MBq)/mL Packaged under nitrogen in 0.01 M sodium acetate (pH 5.0). Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC313010UC NEC313050UC
Acetyl coenzyme A, [acetyl-1-14C]- CAT assay grade 4 mCi (148 MBq)/mmol 0.01 mCi (0.37 MBq)/mL Packaged in 0.01 M sodium acetate (pH 5.0) under nitrogen. Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC313L010UC NEC313L050UC
Acetyl coenzyme A, [acetyl-1-14C]- 50–62 mCi (1.85–2.30 GBq)/mmol Freeze dried solid Shipped in dry ice. Store at –20°C.	10 μCi (370 kBq)	NEC313N010UC
Acetyl coenzyme A, [acetyl-³H]- 1–10 Ci (37–370 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged under nitrogen in 0.01 M sodium acetate (pH 5.0). Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET290050UC NET290250UC
Acetyl coenzyme A, [acetyl-³H]- CAT assay grade (fluor diffusion assay) 200 mCi (7.4 GBq)/mmol 0.5 mCi (18.5 MBq)/mL Packaged in 0.01 M sodium acetate (pH 5.0) under nitrogen. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET290L050UC NET290L250UC
Acetylcholine iodide, [acetyl-³H]- 50–100 mCi (1.85–3.7 GBq)/mmol Packaged as a crystalline solid in a screw-cap bottle that protects contents from UV light. Shipped ambient. Store at 2–8 °C.	1 mCi (37 MBq)	NET113001MC
Acyclovir, [side chain-2-3H]- 15–35 Ci (0.555–1.29 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (30:70). Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET883250UC NET883001MC
Adenine, [2,8-3H]- 20–40 Ci (0.74–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET063001MC NET063005MC
Adenosine 3,5'-cyclic phosphate (cAMP), ammonium salt, [Adenine-14C(U)]->220 mCi (>8.1 GBq)/mmol 0.025 mCi (925 kBq)/mL Steri-packaged in ethanol:water (2:98). Shipped in dry ice. Store at -20 °C.	5 μCi (185 kBq)	NEC829005UC
Adenosine 3,5-cyclic phosphate (cAMP), ammonium salt, [8-3H(N)]- 20–30 Ci (0.74–1.11 TBq)/mmol 1.0 mCi (37 MBq)/mL Packaged in ethanol:water (1:1) Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1161250UC NET1161001MC

Product	Size	Product No.
Adenosine 3',5'-cyclic phosphate, ammonium salt, [2,8-3H]-25-40 Ci (0.925-1.48 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET275250UC NET275001MC
Adenosine 3',5'-cyclic phosphoric acid, 2'-O-succinyl, [125]-iodotyrosine methyl ester 2200 Ci (81.4 TBq)/mmol Packaged in 1-propanol:0.02 M sodium acetate (pH 6.0) (1:1). Shipped ambient. Store at 2–8 °C. Fresh lot: First Monday of each month.	1 μCi (37 kBq) 5 μCi (185 kBq) 10 μCi (370kBq) 50 μCi (1.85 MBq)	NEX130001UC NEX130005UC NEX130010UC NEX130050UC
Adenosine 5'-diphosphate, trisodium salt, [8-14C]- 40-60 mCi (1.48-2.22 GBq)/mmol 0.02 mCi (0.74 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC559010UC NEC559050UC
Adenosine 5'-diphosphate, trisodium salt, [2,8-³H]- 25–40 Ci (0.925–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET241250UC
Adenosine 5'-(\alpha-thio) triphosphate  Non-labeled material.  Packaged as a stabilized aqueous solution.  Shipped in dry ice. Store at -20 °C or below.  Fresh lot: First Tuesday of each month.	2 μmol 5 μmol 25 μmol 100 μmol	NLP016002UM NLP016005UM NLP016025UM NLP016100UM
Adenosine 5'-(\alpha-thio) triphosphate, [35S]- 1250 Ci (462.5 TBq)/mmol 12.5 mCi/mL (462.5 MBq)/ml Packaged as a stabilized aqueous solution. Shipped in dry ice. Store at -20 °C or below. Fresh lot: First Tuesday of each month.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG033H250UC NEG033H001MC
Adenosine 5'-(\gamma-thio) triphosphate, [35S]- 25–100 Ci (0.925–3.7 TBq)/mmol 12.5 mCi/mL (462.5 MBq)/ml Packaged in 10 mM tricine (pH 7.6) with 10 mM DTT. Shipped in dry ice. Store at -20 °C or below. Fresh lot: First Tuesday of each month.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG027250UC NEG027001MC
Adenosine 5'-(γ-thio) triphosphate, [35]- 1250 Ci (46.2 TBq)/mmol 12.5 mCi/mL (462.5 MBq)/ml Packaged in 10 mM tricine (pH 7.6) with 10 mM DTT. Shipped in dry ice. Store at -20 °C or below. Fresh lot: First Tuesday of each month.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG027H250UC NEG027H001MC
Adenosine 5'-triphosphate, tetrasodium salt, [2,8-3H]- 25–40 Ci (0.925–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET420250UC NET420001MC

Product	Size	Product No.
Adenosine 5'-triphosphate, $[\alpha^{-32}P]$ -800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU003X250UC BLU003X500UC BLU003X001MC
Adenosine 5'-triphosphate, $[\alpha^{-3^2}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU503H250UC BLU503H500UC BLU503H001MC
Adenosine 5'-triphosphate, $[\alpha^{-32}P]$ - 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU003H250UC BLU003H500UC BLU003H001MC
Adenosine 5'-triphosphate, [γ- <sup>32</sup> P]- 10 Ci (370 GBq)/mmol 2 mCi (74 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU002250UC BLU002500UC BLU002001MC
Adenosine 5'-triphosphate, [γ-³²P]- 10 Ci (370 GBq)/mmol 2 mCi (74 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq)	NEG002250UC
Adenosine 5'-triphosphate, [γ- <sup>32</sup> P]-, (EasyTides) 3000 Ci (111 TBq)/mmol 5 mCi (185 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU502H250UC BLU502H500UC BLU502H001MC
Adenosine 5'-triphosphate, $[\gamma^{-32}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 5 mCi (185 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG502H250UC NEG502H500UC NEG502H001MC
Adenosine 5'-triphosphate, [γ-³²P]- 3000 Ci (111 TBq)/mmol 5 mCi (185 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU002H250UC BLU002H500UC BLU002H001MC

Product	Size	Product No.
Adenosine 5'-triphosphate, $[\gamma^{-32}P]$ -3000 Ci (111 TBq)/mmol 5 mCi (185 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG002H250UC NEG002H500UC NEG002H001M
Adenosine 5'-triphosphate, $[\gamma^{-32}P]$ -, (EasyTides) 3000 Ci (1111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C. Fresh lot: Every Thursday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU502A100UC BLU502A250UC BLU502A500UC BLU502A001MC
Adenosine 5'-triphosphate, $[\gamma^{-32}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C. Fresh lot: Every Thursday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NEG502A100UC NEG502A250UC NEG502A500UC NEG502A001M0 NEG502A005M0
Adenosine 5'-triphosphate, $[\gamma^{-32}P]$ -3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU002A100UC BLU002A250UC BLU002A500UC BLU002A001MC
Adenosine 5'-triphosphate, [γ- <sup>32</sup> P]- 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NEG002A100U0 NEG002A250U0 NEG002A500U0 NEG002A001M NEG002A005M
Adenosine 5'-triphosphate, [\gamma-32P]-, (EasyTides) 6000 Ci (222 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU502Z250UC BLU502Z500UC BLU502Z001MC
Adenosine 5'-triphosphate, $[\gamma^{-32}P]$ -, (EasyTides) 6000 Ci (222 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) in green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG502Z250UC NEG502Z500UC NEG502Z001MC
Adenosine 5'-triphosphate, [\gamma32P]- 6000 Ci (222 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq)	BLU002Z250UC BLU002Z500UC

Product	Size	Product No.
Adenosine 5'-triphosphate, $[\gamma^{-32}P]$ -6000 Ci (222 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG002Z250UC NEG002Z500UC NEG002Z001MC
Adenosine 5'-triphosphate, $[\gamma^{-32}P]$ -6000 Ci (222 TBq)/mmol 150 mCi (5.55 GBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	1 mCi (37 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq)	NEG035C001MC NEG035C005MC NEG035C010MC
Adenosine 5'-triphosphate, $[\alpha^{-33}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with amber gold dye. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Other Friday.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG603H250UC NEG603H001MC
Adenosine 5'-triphosphate, $[\gamma^{-33}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with amber gold dye. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Other Friday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG602H100UC NEG602H250UC NEG602H001MC
Adenosine 5'-Triphosphate, $[\gamma^{-33}P]$ - High Throughput Screening (HTS) Grade 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10mM Tricine pH 7.6 solution containing a proprietary stabilizer. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Other Friday.	250μCi (9.25MBq) 1 mCi (3.7 Kbq)	NEG602K250UC NEG602K001MC
Adenosine 5'-triphosphate, $[\gamma^{-33}P]$ -3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in dry ice. Store at -20 °C. Fresh lot: Every Other Friday.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG302H250UC NEG302H001MC
Adenosyl-L-methionine, S-[methyl-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.02 mCi (0.74 MBq)/mL Packaged in 10 mM sulfuric acid:ethanol (9:1). Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC363010UC NEC363050UC
Adenosyl-L-methionine, S-[methyl-³H]- (SAM) 5–15 Ci (185–555 GBq)/mmol 0.55 mCi (20.35 MBq)/mL Packaged in 10 mM sulfuric acid:ethanol (9:1). Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET155050UC NET155250UC NET155001MC
Adenosyl-L-methionine, S-[methyl-³H]- (SAM) 55–85 Ci (2.03–3.15 TBq)/mmol 0.55 mCi (20.35 MBq)/mL Packaged in 10 mM sulfuric acid:ethanol (9:1) under argon. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET155H250UC NET155H001MC

#### Ad-Am

Product	Size	Product No.
Adenosyl-L-methionine, S-[methyl-³H]- (SAM) 12–18 Ci (444–666 GBq)/mmol 1.0 mCi (37 MBq)/mL Packaged in dilute hydrochloric acid, pH 2.0-2.5, under argon. Shipped in dry ice. Store at –20°C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET155V250UC NET155V001MC
Adrenaline See Epinephrine.		
Adrenomedullin (Tyr), [125]-, (human, 13–52) 2200 Ci (81.4 TBq)/mmol Packaged in 0.1% TFA and 0.4% BSA:46% 1-propanol and 54% acetonitrile (1:1). Shipped Dry Ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX385010UC NEX385025UC
Adrenomedullin (Rat), [125]- 2200 Ci (81.4TBq)/mmol Packaged lyophilized Shipped Dry Ice. Store at -20°C or below. Fresh Lot: Second Monday of each month	10 μCi (370 kBq) 25 μCi (925kBq)	NEX427010UC NEX427025UC
AEA See Anandamide.		
AF-DX 384, [2,3-dipropylamino-³H]- 100–160 Ci (3.7–5.92 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 0.5 N HCl in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1041025UC NET1041250UC NET1041001MC
AGRP (Ac-87-132), [125]-, (human, synthetic) 2200 Ci (81.4 TBq)/mmol Packaged in 100 mM tris-HCl (pH 7.5) containing 0.1% BSA and N-Ac-Met:acetonitrile (9:1). Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX372010UC NEX372025UC
Alanine, L-[14C(U)]- >150 mCi (5.55 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC266E050UC NEC266E250UC NEC266E001MC
Alanine, L-[3-3H]- 65–85 Ci (2.41–3.15 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 5 mCi (185 MBq)	NET348250UC NET348005MC
Albumin, Bovine Serum, [125]-, ([125]-BSA) 1–5 μCi (37–185 kBq)/μg Packaged in a phosphate buffer (pH 7.5). Shipped in dry ice. Store at -20 °C. Fresh lot: Fourth Monday of each month.	500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEX076500UC NEX076001MC
Aldosterone, D-[1,2,6,7-3H(N)]- 70–100 Ci (2.59–3.7 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET419250UC
Amino acid mixture, L. See L-Amino acid mixture.		

### Am-An

Product	Size	Product No.
Amino-3-hydroxy-5-methylisoxazole-4-propionic acid, DL- $\alpha$ -[5-methyl- $^3$ H]-, (AMPA) 40–70 Ci (1.48–2.59 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1) under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET833025UC NET833250UC NET833001MC
Aminobutyric acid, γ-[2,3-³H(N)]-, (GABA) 25–40 Ci (0.925–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Packaged under nitrogen in 0.01 N HCl. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET191250UC NET191001MC
Aminobutyric acid, $\gamma$ -[2,3- $^3$ H(N)]-, (GABA) 70–100 Ci (2.59–3.7 TBq)/mmol 1 mCi (37 MBq)/mL Packaged under nitrogen in 0.01 N HCl. Shipped ambient. Store at 2–8 $^\circ$ C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET191X250UC NET191X001MC
Aminohippuric acid, p-[glycyl-1-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in 0.01 N HCl in a vial that protects contents from UV light. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC563050UC NEC563250UC
Aminohippuric acid, p-[glycyl-2-³H]- 1–5 Ci (37–185 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in 0.01 N HCl in a vial that protects contents from UV light. Shipped ambient. Store at 2–8 °C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET053001MC NET053005MC
Aminopotentidine, [125]]- 2200 Ci (81.4TBq)/mmol Packaged in an ethanol and water solution. Shipped Ambient. Store at 2-8°C. Fresh Lot: Third Monday of each month	10 μCi (370kBq) 25 μCi (925kBq)	NEX431010UC NEX431025UC
Aminopyrine, [Dimethylamine- 14C]- 100-124 mCi (3.7-4.6 GBq)/mmol Steri-packaged in aqueous solution under nitrogen, in a vial which protects contents from UV light Shipped in dry ice. Store at - 20°C  AMPA	50 μCi(1.85 MBq) 250 μCi (9.25 MBq)	NEC707D050UC NEC707D250UC
See Amino-3-hydroxy-5-methylisoxazole-4-prioprionic acid.		
Amylin, [1251]-, (rat) 2200 Ci (81 TBq)/mmol Shipped in a solution containing HPLC solvent as well as citric acid (10 mM), lactose (5%), BSA (0.25%), L-cysteine (0.2%), and aprotinin (0.0075%). Shipped in dry ice. Store at –20°C. Fresh lot: Third Monday of each month.	25 μCi (925 kBq) 50 μCi (1.85 MBq) 100 μCi (3.70 MBq)	NEX448025UC NEX448050UC NEX448100UC
Anandamide, [arachidonyl-5,6,8,9,11,12,14,15-3H]- 160–240 Ci (5.92–8.88 TBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET1073025UC NET1073050UC NET1073250UC
Androst-4-ene-3,17-dione, [1,2,6,7-3H(N)]- 70–110 Ci (2.59–4.07 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET469250UC NET469001MC

#### An-An

Product	Size	Product No.
Androst-4-ene-3,17-dione, [1β-³H(N)]- 15–30 Ci (0.555–1.11 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET926250UC NET926001MC NET926005MC
Androst-4-ene-3,17-dione, [4- <sup>14</sup> C]- 45–60 mCi (1.66–2.22 GBq)/mmol 0.02 mCi (0.74 MBq)/mL Packaged in ethanol. Shipped ambient. Store at 2–8 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC136010UC NEC136050UC
Androstane- $3\alpha$ , $17\beta$ -diol, $5\alpha$ - $[9,11^{-3}H(N)]$ - $40$ - $60$ Ci $(1.48$ - $2.22$ TBq)/mmo 1 mCi $(37$ MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET806250UC
Angiotensin I (Tyr <sup>4</sup> ), [ <sup>125</sup> I]-, (human) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline containing glycine, BSA and Trasylol®. Shipped ambient. Store at 2–8 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX101010UC NEX101050UC
Angiotensin II (Sar¹,Tyr⁴, Ile®), [¹²⁵l]- 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline (pH 4.6) containing glycine and heat-treated BSA. Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX248010UC NEX248050UC
Angiotensin II (Tyr <sup>4</sup> ), [1251]-, (human) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline containing glycine, BSA and Trasylol®. Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX105010UC NEX105050UC
Angiotensin IV (Tyr²), [125]-, (human) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from sodium phosphate buffer (pH 4.6) containing glycine, sodium chloride and BSA. Shipped ambient. Store at 2–8 °C. Fresh upon request.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX295010UC NEX295050UC
Anti-mouse IgG, whole antibody, [ $^{125}$ I]-, (goat) 2–10 $\mu$ Ci (74–370 kBq)/ $\mu$ g Packaged in phosphate-buffered saline containing BSA and Tween-80 $^{\circ}$ . Shipped in dry ice. Store at -20 $^{\circ}$ C. Fresh lot: First Monday of each month.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq)	NEX159100UC NEX159250UC
Anti-mouse IgG, whole antibody, [1251]-, (rabbit) 2–10 µCi (74–370 kBq)/µg Packaged in phosphate-buffered saline containing BSA and Tween-80®. Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq)	NEX161100UC NEX161250UC

## An-As

Product	Size	Product No.
Anti-rabbit IgG, whole antibody, [1251]-, (goat) 2–10 µCi (74–370 kBq)/µg Packaged in phosphate-buffered saline containing BSA and Tween-80®. Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq)	NEX155100UC NEX155250UC
Antisauvagine-30 (8-1-His²), [1²⁵l]- 2200 Ci (81.4 TBq)/mmol Packaged in 0.17 M acetic acid with 0.2% BSA and a stabilizer:acetonitrile (9:1). Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX399010UC NEX399025UC
Apamin (His18-NH <sub>2</sub> ), [125 ]- 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from sodium phosphate buffer containing sodium chloride, glycine, and BSA (pH 5.1). Shipped ambient. Store at 2–8 °C. Fresh lot: Fourth Monday of odd months.	25 μCi (925 kBq) 50 μCi (1.85 MBq) 100 μCi (3.7 MBq)	NEX242025UC NEX242050UC NEX242100UC
Apelin 13 (Glp <sup>65</sup> , Nle <sup>75</sup> , Tyr <sup>77</sup> ), [ <sup>125</sup> l]- 2200 Ci (81.4 TBq)/mmol Packaged in 50 mM sodium acetate (pH 4.0) with 5% sucrose and 0.25% BSA. Shipped in dry ice. Store at 2–8 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq) 50μCi (1.85MBq)	NEX393010UC NEX393025UC NEX393050UC
Arachidonic acid, [1-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC661010UC NEC661050UC
Arachidonic acid, [5,6,8,9,11,12,14,15-3H(N)]- 60–100 Ci (2.22–3.7 TBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET298050UC NET298250UC
Arachidonic acid, [5,6,8,9,11,12,14,15-³H(N)]- 180–240 Ci (6.66–8.88 TBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET298Z050UC NET298Z250UC
Arginine, L-[ <sup>14</sup> C(U)]- >300 mCi (11.1 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC267E050UC NEC267E250UC
Arginine monohydrochloride, L-[2,3,4-³H]- 40–70 Ci (1.48–2.59 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET1123250UC NET1123001MC NET1123005MC
Ascorbic acid, L-[1-14C]- 2–10 mCi (74–370 MBq)/mmol Packaged as a crystalline solid in a screw-cap bottle. Shipped ambient. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC146050UC NEC146250UC
Aspartic acid, D-[2,3-3H]- 10–25 Ci (370–925 GBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET581250UC NET581001MC

#### As-Bo

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Product	Size	Product No.
Astemizole, [O-methyl-³H]- 60–87 Ci (2.22–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1140025UC NET1140250UC NET1140001MC
α- Atrial Natriuretic Peptide - Tyr28 (human) [1251] α-ANP 2200 Ci (81.4TBq)/mmol Packaged lyophilized Shipped Ambient. Store at °4C or below. Fresh Lot: First Monday of each month	5 μCi (185kBq) 25 μCi (925kBq)	NEX425050UC NEX425025UC
Atrial Natriuretic Factor - Tyr <sup>28</sup> (rat) - [ <sup>125</sup> I]- ANF 2200 Ci (81.4TBq)/mmol Packaged lyophilized from a solution containing 0.08M Tris HCl, 0.08M NaCl, 0.5M glycine, and 0.1% BSA at pl Shipped Ambient. Store at 4°C or below. Fresh Lot: First Monday of each month	10 μCi (370kBq) 50 μCi (1.85MBq) ł 5.0.	NEX228010UC NEX228050UC
Baclofen, (-)-[butyl-4-³H(N)]- 30–50 Ci (1.11–1.85 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (7:3). Shipped ambient. Store at -20 °C.	250 μCi (9.25 MBq)	NET867250UC
Batrachotoxinin A $20-\alpha$ -benzoate, [benzoyl-2,5- $^3$ H]- $30-60$ Ci $(1.11-2.22$ TBq)/mmol 1 mCi $(37$ MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -80 °C.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq)	NET876100UC NET876250UC
BeKm-1 (Tyr <sup>11</sup> ), [ <sup>125</sup> I]- 2200 Ci (81.4 TBq)/mmol Packaged in 0.1% TFA and 0.4% BSA:46% 1-propanol and 54% acetonitrile (50:50). Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX412010UC NEX412025UC
Biotin, [8,9-³H(N)]-, (Vitamin H) 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Sterilized by filtration and dispensed under aseptic conditions. Packaged in an aqueous solution with 50 mM 2-mercaptoethanol under argon. Shipped in dry ice. Store at -80 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET721250UC NET721001MC
Bolton-Hunter Reagent, [125]-, (monoiodinated) 2200 Ci (81.4 TBq)/mmol Packaged in anhydrous benzene. A charcoal trap is provided with each vial. Shipped ambient. Store ambient. Fresh lot: Monday of each week.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 2 mCi (74 MBq)	NEX120250UC NEX120001MC NEX120002MC
Bolton-Hunter Reagent, [125]-, (diiodinated) 4400 Ci (163 TBq)/mmol Packaged in anhydrous benzene. A charcoal trap is provided with each vial. Shipped ambient. Store ambient. Fresh lot: Monday of each week.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 2 mCi (74 MBq)	NEX120H250UC NEX120H001MC NEX120H002MC
Bombesin (D-Tyr <sup>6</sup> ,βAla <sup>11</sup> , Phe <sup>13</sup> , Nle <sup>14</sup> ), [ <sup>125</sup> I]-, (6–14) 2200 Ci (81.4 TBq)/mmol Packaged in 0.2 M N-acetylmethionine, 50 mM phosphoric acid and 0.25% BSA:1-propanol (1:1). Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX377010UC NEX377025UC
Bombesin (Tyr <sup>4</sup> ), [ <sup>125</sup> I]- 2200 Ci (81.4 TBq)/mmol Packaged in phosphate-buffered saline with BSA and a stabilizer (pH 3.4):1-propanol (1:1). Shipped in dry ice. Store at -20 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX258010UC NEX258050UC

# Bo-Ca

Product	Size	Product No.
Bovine Serum Albumin		
See Albumin, Bovine Serum.		
Bradykinin, [2,3-prolyl-3,4-³H(N)]- 80–120 Ci (2.96–4.44 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 0.2% TFA:acetonitrile (80:20) in a silanized vial. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET706050UC NET706250UC NET706001MC
Bradykinin, (Lys <sup>6</sup> , Des-Arg <sup>9</sup> ) See Kallidin.		
Bradykinin B-1 agonist See Kallidin (Des, Arg¹º).		
BRL-43694, [9-methyl-³H]- 50–90 Ci (1.85–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon in a silanized vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1030025UC NET1030250UC
BSA See Albumin, Bovine Serum.		
α-Bungarotoxin (Tyr <sup>54</sup> ), [ <sup>125</sup> ]- 10–20 μCi (370–740 kBq)/μg Packaged lyophilized from phosphate-buffered saline (pH 4.2) containing glycine, BSA and Trasylol®. Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of each month.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq)	NEX126050UC NEX126250UC NEX126500UC
α-Bungarotoxin, [125] 2200 Ci (81.4TBq)/mmol Packaged lyophilized Shipped Ambient. Store at 4°C. Fresh Lot: Second Monday of each month	50μCi (1.85MBq) 250μCi (9.25MBq)	NEX126H050UC NEX126H250UC
Butyl bicyclophosphorothionate, tertiary-[35S]- >60 Ci (2.22 TBq)/mmol 2 mCi (74 MBq)/mL Packaged in ethanol under nitrogen. Shipped in dry ice. Store at -20 °C. Fresh lot: First Tuesday of each month.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq)	NEG049100UC NEG049250UC
C3a See Complement C3a.		
Caffeine, [1-methyl-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped ambient. Store at -20 °C.	50 μCi (1.85 MBq)	NEC412050UC
Calcitonin Gene-Related Peptide, [1251]-, ([1251]-hCGRP), (human) 2200 Ci (81.4 TBq)/mmol Packaged in a solution of phosphate-buffered saline (pH 7.4) containing glycine and BSA. Shipped Dry Ice. Store at -20 °C. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX354010UC NEX354050UC
Calcitonin [Tyr <sup>12</sup> ] (Human), [ <sup>125</sup> ]]- 2200 Ci (81.4TBq)/mmol Packaged lyophilized Shipped Dry Ice. Store at 4°C or below. Fresh Lot: First Monday of each month	10μCi (370kBq) 25μCi (925kBq)	NEX422010UC NEX422025UC
Calcitonin [Tyr <sup>22</sup> ] (salmon), [125I]- 618.7 µCi (22.89 MBq)/µg Packaged lyophilized Shipped Dry Ice. Store at 4°C or below. Fresh Lot: First Monday of each month	10μCi (370kBq) 25μCi (925kBq)	NEX423010UC NEX423025UC
Calcium-45 radionuclide >10 Ci (370 GBq)/g Packaged as calcium chloride in an aqueous solution. Shipped ambient. Store at 2–8 °C. Half life: 163 days	1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq)	NEZ013001MC NEZ013002MC NEZ013005MC NEZ013010MC

# Ca-Cg

Product	Size	Product No.
5-Carboxamidotryptamine, [1,2-³H]- 20–60 Ci (0.74–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq)	NET1071025UC
Carnitine hydrochloride, L-[N-methyl-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in an aqueous solution in a silanized vial. Not for human use. Shipped blue ice. Store at 2–8 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC797010UC NEC797050UC
Carnitine hydrochloride, L-[methyl-³H]- 60–86 Ci (2.22–3.18 TBq)/mmol 1.0 mCi (37 MBq)/mL Packaged in ethanol:water (1:1) Shipped in dry ice. Store at –20°C.  CCK-8	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1181250UC NET1181001MC
See Cholecystokinin octapeptide.  CCL15, [125]-, (human, recombinant) 2000–2800 Ci (74–104 TBq)/mmol Packaged in 0.05 M sodium acetate, 50 mM N-acetylmethionine, 5% sucrose and 0.25% BSA (pH 4.0). Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi(370kBq) 25 μCi (925 kBq)	NEX401010UC NEX401025UC
(-)-CGP-12177, [5,7-3H]- 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1061025UC NET1061250UC NET1061001MC
CGP 39653, [propyl-2,3,3H]- 20–50 Ci (0.74–1.85 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:9) under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1050025UC NET1050250UC NET1050001MC
CGP 42112A, [1 <sup>25</sup> I]- 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline (pH 7.2) containing glycine and BSA. Shipped ambient. Store at 2–8 °C. Fresh lot: Third Monday of even months.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX324005UC NEX324025UC
CGRP See Calcitonin Gene-Related Peptide.		
CGS 21680, [carboxyethyl-³H(N)]- 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (70:30) under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1021025UC NET1021250UC NET1021001MC

# Ch-Ch

Product	Size	Product No.
Charcoal traps Shipped ambient. Store ambient.	1 trap per box 12 traps per box	NEX033T001EA NEX033T012EA
Chloramphenicol, [ring-3,5-³H]- 80–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20°C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET928250UC NET928001MC
Chloramphenicol, D-threo-, [dichloroacetyl-1,2- <sup>14</sup> C]- 40–60 mCi (1.48–2.22 GBq)/mmol) 0.1 mCi (3.7 MBq)/mL Packaged in ethanol under nitrogen in a vial protects contents from UV light. Shipped ambient. Store at -20°C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC408050UC NEC408250UC
Chloramphenicol, D-threo-, [dichloroacetyl-1,2- <sup>14</sup> C]- CAT assay grade (TLC Based Assay) 50–60 mCi (1.85–2.22 GBq)/mmol 0.05 mCi (1.85 MBq)/mL Steri-packaged in 25 mM tris-HCl (pH 7.4) in a vial that protects contents from UV light. Shipped ambient. Store at 2–8 °C.	25 μCi (925 kBq) 50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC408A025UC NEC408A050UC NEC408A250UC
Cholecystokinin octapeptide, [¹²⁵l]-, Bolton-Hunter labeled, ([¹²⁵l]-CCK-8) 2200 Ci (81.4 TBq)/mmol Packaged in ethanol:acetonitrile:water (30:25:45) containing TFA and 2-mercaptoethanol. Shipped in dry ice. Store at -20°C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX203010UC NEX203050UC
Cholesterol, [1,2-3H(N)]- 40–60 Ci (1.48–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 µСі (9.25 МВq) 1 mСі (37 МВq) 5 mСі (185 МВq)	NET139250UC NET139001MC NET139005MC
Cholesterol, [4-14C]- 45–60 mCi (1.66–2.22 GBq)/mmol 0.04 mCi (1.48 MBq)/mL Packaged in ethanol. Shipped ambient. Store at 2–8°C.	10 μCi (370 kBq) 50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC018010UC NEC018050UC NEC018250UC
Cholesteryl hexadecyl ether, [cholesteryl-1,2-3H(N)]- 40–60 Ci (1.48–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in toluene under nitrogen in a sealed ampoule. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET859250UC NET859001MC
Cholesteryl oleate, [cholesteryl-1,2-³H(N)]- 40–60 Ci/mmol (1.48–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in toluene under nitrogen in a sealed ampoule. Shipped in dry ice. Store at -20°C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET746L250UC NET746L001MC
Cholesteryl oleate, [oleate-1- <sup>14</sup> C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in toluene under nitrogen in a sealed ampoule. Shipped in dry ice. Store at -20°C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC638050UC NEC638250UC
Cholesteryl palmityl ether See Cholesteryl hexadecyl ether.		

### Ch-Ci

Product	Size	Product No.
Choline chloride, [methyl-³H]- 60–90 Ci (2.22–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged under ethanol in a silanized vial. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET109250UC NET109001MC NET109005MC
Chorionic Gonadotropin, [1251]-, ([1251]-hCG), (human) >50 µCi (1.85 MBq)/µg Packaged in phosphate-buffered saline containing glycine, BSA and Trasylol®. Shipped in dry ice. Store at -20 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX106010UC NEX106050UC
Chromium-51 radionuclide >50 Ci (1.85 TBq)/g Packaged as chromium chloride in 0.5 M HCl. Shipped ambient. Store ambient. Half life: 27.7 days Fresh lot: Every other week.	1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq)	NEZ020001MC NEZ020002MC NEZ020005MC NEZ020010MC
Chromium-51 radionuclide >50 Ci (1.85 TBq)/g 10 mCi (370 MBq)/mL Packaged as an EDTA complex in 0.005 M EDTA (pH 7.0). Shipped ambient. Store ambient. Half life: 27.7 days Fresh lot: Every 4 weeks.	1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq)	NEZ147001MC NEZ147002MC NEZ147005MC NEZ147010MC
Chromium-51 radionuclide  400–1200 Ci (14.8–44.4 TBq)/g  5 mCi (185 MBq)/mL  Steri-packaged as sodium chromate in normal saline (pH 8–10).  Shipped ambient. Store ambient.  Half life: 27.7 days  Fresh lot: Friday of every other week.	1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq)	NEZ030001MC NEZ030002MC NEZ030005MC NEZ030010MC
Chromium-51 radionuclide 400–1200 Ci (14.8–44.4 TBq)/g 1 mCi (37 MBq)/mL Steri-packaged as sodium chromate in normal saline (pH 8–10). Shipped ambient. Store ambient. Half life: 27.7 days Fresh lot: Friday of every other week.	1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq)	NEZ030S001MC NEZ030S002MC NEZ030S005MC NEZ030S010MC
-CIT See RTI-55. Citalopram, [N-methyl-³H]- 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET1039050UC NET1039250UC

# Ci-Co

Product	Size	Product No.
Citric acid, [1,5-14C]- 100–124 mCi (3.7–4.6 GBq)/mmol 0.05 mCi (1.85 MBq)/mL Steri-packaged in ethanol:water (2:98). Shipped in blue ice. Store at 4°C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC160050UC NEC160250UC
Citrulline, L-[ureido-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (1:1). Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC214050UC NEC214250UC
6-Ckine, [125 ]-, Bolton-Hunter labeled, (CCL21), (human, recombinant) 60–176 µCi (2.2–6.5 MBq)/µg Packaged in 50 mM sodium acetate with 5.0% sucrose and 0.25% BSA. Shipped ambient. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX387010UC NEX387025UC
Clonidine hydrochloride, [benzene ring-³H]- 50–80 Ci (1.85–2.96 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (7:3) under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET613250UC NET613001MC
CMP-N-Acetyl-Neuraminic acid See Cytidine 5'-monophosphate, sialic acid.		
CMP-sialic acid See Cytidine 5'-monophosphate, sialic acid.		
Cobalt-57 Radionuclide > 1 Ci (37 MBq)/g Shipped ambient. Store ambient Half life: 271 days	500 μCi (18.5 MBq) 1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq)	NEZ022500UC NEZ022001MC NEZ022002MC NEZ022005MC NEZ022010MC
Cocaine, levo-[benzoyl-3,4-3H(N)]- 20–50 Ci (0.74–1.85 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq)	NET510100UC NET510250UC
Coenzyme A See specific fatty acid.		
Colchicine, [ring C, methoxy-³H]- 60–87 Ci (2.22–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped ambient. Store at -20 °C.	250 μCi (9.25 MBq)	NET189250UC
Complement C3a, [125]-, Bolton-Hunter labeled, (human) 2200 Ci (81.4 TBq)/mmol Packaged in phosphate-buffered saline (pH 6.0) containing sucrose, BSA and a stablizer. Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX356010UC NEX356050UC

# Co-Cp

Product	Size	Product No.
Complement C5a, [125]-, Bolton-Hunter labeled, (human, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged in saline (pH 6.0) containing sucrose, BSA and a stabilizer. Shipped in dry ice. Store at -20 °C. Fresh lot: Third Monday of each month.	5 μCi (185 kBq) 10 μCi (370 kBq) 25 μCi (925 kBq)	NEX250005UC NEX250010UC NEX250025UC
ω-Conotoxin GVIA (Tyr <sup>22</sup> ), [ <sup>125</sup> I]- 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline (pH 5.2) containing glycine and BSA. Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX239010UC NEX239050UC
ω-Conotoxin MVIIC, [125]- 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline (pH 5.2) containing glycine, BSA and a stabilizer. Shipped ambient. Store at 2–8 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX323010UC NEX323050UC
Cordycepin 5'-triphosphate See Deoxyadenosine 5'-triphosphate, tetrasodium salt.		
Corticosterone, [1,2,6,7-3H(N)]- 70–100 Ci (2.59–3.7 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET399250UC NET399001MC
Corticotropin Releasing Factor (Tyr <sup>0</sup> ), [ <sup>125</sup> l]-, (ovine) 2200 Ci (81.4 TBq)/mmol Packaged in water:acetonitrile (65:35) containing TFA, BSA and 2-mercaptoethanol. Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX217010UC NEX217050UC
Corticotropin Releasing Factor (Tyr <sup>0</sup> ), [ <sup>125</sup> l]-, (human, rat) 2200 Ci (81.4 TBq)/mmol Packaged in water:acetonitrile (65:35) containing TFA, BSA and 2-mercaptoethanol. Shipped ambient. Store at 2—8 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX216010UC NEX216050UC
Cortisol See Hydrocortisone for <sup>3</sup> H label		
Cortisol-3-(0-carboxymethyl)oximino-(2-[125], iodohistamine) 2200 Ci (81.4TBq)/mmol Packaged in ethanol. Shipped Dry Ice. Store at -20°C or below Fresh Lot: Third Monday of each month	10μCi (370kBq) 25μCi (925kBq)	NEX435010UC NEX435025UC
Cortisone, [1,2-3H(N)]- 30–60 Ci (1.11–2.22 TBq)/mmol 1.0 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store under nitrogen at –20°C.	1 mCi (37 MBq)	NET1178001M
Coumarin, 7-ethoxy, [3-14C]- >50 mCi (1.85 GBq)/mmol Solid Shipped in dry ice. Store at –20°C.	50 μCi (1.85 MBq)	NEC836050UC
CP 55940, [side chain-2,3,4-3H(N)]- 100–180 Ci (3.7–6.66 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1051025U0 NET1051250U0 NET1051001M

# CP-Cy

Product	Size	Product No.
CPX		
See Cyclopentyl-1,3-dipropylxanthine.		
CRF See Corticotropin Releasing Factor.		
5-CT		
See 5-Carboxamidotryptamine.		
CTACK, [ $^{125}$ ]-, (CCL27), (human, recombinant) 75–214 $\mu$ Ci (2.78–7.92 MBq)/ $\mu$ g Packaged in 50 mM sodium acetate (pH 4.2), 5.0% sucrose and 0.25% BSA. Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX391010UC NEX391025UC
Fresh upon request.		
CXCL16, [1 <sup>25</sup> I]-, (human, recombinant) 1600–3200 Ci (59.2–118 TBq)/mmol Packaged in 50 mM sodium acetate (pH 4.2) containing 50 mM N-acetylmethionine, 5% sucrose and 0.25% BSA Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX398010UC NEX398025UC
Cyclic AMP See Adenosine 3',5'-cyclic phosphate.		
Cyclic GMP		
See Guanosine 3',5'-cyclic phosphate.		
(-)-Cyanopindolol, [125]jiodo- 2200 Ci (81.4 TBq)/mmol Packaged in 1-propanol:water:phenol (50:50:1.2). Shipped in dry ice. Store at 2–8 °C. Fresh lot: First Monday of each month.	100 μCi (3.7 MBq) 500 μCi (18.5 MBq)	NEX189100UC NEX189500UC
(±)-Cyanopindolol, [1251]iodo-	100 μCi (3.7 MBq)	NEX174100UC
2200 Ci (81.4 TBq)/mmol Packaged in 1-propanol:water:phenol (50:50:1.2). Shipped in dry ice. Store at 2–8 °C. Fresh lot: First Monday of each month.	500 μCi (18.5 MBq)	NEX174500UC
Cyclopentyl-1,3-dipropylxanthine, 8-[dipropyl-2,3-3H(N)]- 80–120 Ci (2.96–4.44 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET974025UC NET974250UC NET974001MC
Cyclosporin A [MEBMT-BETA- <sup>3</sup> H] 5-20 Ci (185-740 GBq)/mmol) 1.0 mCi (37 MBq)/ml Packaged in ethanol Shipped in dry ice. Store at - 20oC	1 mCi (37 MBq)	NET1159001MC
Cysteine, L-[35S]- >1000 Ci (37 TBq)/mmol 11 mCi (407 MBq)/mL Packaged in 10 mM DTT. Shipped in dry ice. Store at -20°C or below. Fresh lot: Every third Monday.	1 mCi (37 MBq) 5 mCi (185 MBq)	NEG022T001MC NEG022T005MC
Cystine, L-[14C(U)]- >250 mCi (9.25 GBq)/mmol 0.2 mCi (0.74 MBq)/mL Packaged in ethanol:water (2:98). Shipped on blue ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC465010UC NEC465050UC



		Су-Су
Product	Size	Product No.
Cytidine 3',5'-bis(phosphate), [5'- <sup>32</sup> P]- 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq)	BLU019A250UC BLU019A500UC
Cytidine 3',5'-bis(phosphate), [5'-³²P]- 3000 Ci (1111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq)	NEG019A250UC NEG019A500UC
Cytidine 5'-( $\alpha$ -thio) triphosphate  Non-labeled material.  Packaged as a stabilized aqueous solution.  Shipped in dry ice. Store at -20 °C or below.  Fresh lot: First Tuesday of each month.	2 μmol 5 μmol	NLP027002UM NLP027005UM
Cytidine 5'-( $\alpha$ -thio) triphosphate, [ $^{35}$ S]- 1250 Ci (46.2 TBq)/mmol 70 mCi (25.9 GBq)mL Packaged as a stabilized aqueous solution, containing 10mM tricine (pH 7.6) and 1mM DTT. Shipped in dry ice. Store at -20 °C or below. Fresh lot: First Tuesday of each month.	1 mCi (37 MBq)	NEG064C001MC
Cytidine 5'-(α-thio) triphosphate, [35]- 1250 Ci (46.2 TBq)/mmol 12.5 mCi (462.5 MBq)/mL Packaged as a stabilized aqueous solution, containing 10mM tricine (pH 7.6) and 1mM DTT. Shipped in dry ice. Store at -20 °C or below. Fresh lot: First Tuesday of each month.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG064H250UC NEG064H001MC
Cytidine 5'-triphosphate, tetrasodium salt, [5-3H]->20 Ci (740 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET309250UC NET309001MC
Cytidine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG508X250UC NEG508X500UC NEG508X001MC
Cytidine 5'-triphosphate, $[\alpha^{-32}P]$ - 800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU008X250UC BLU008X500UC BLU008X001MC
Cytidine 5'-triphosphate, $[\alpha^{-32}P]$ -800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG008X250UC NEG008X500UC NEG008X001MC

# Cy-De

Product	Size	Product No.
Cytidine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU508H250UC BLU508H500UC BLU508H001MC
Cytidine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG508H250UC NEG508H500UC NEG508H001MC
Cytidine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]- 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU008H250UC BLU008H500UC BLU008H001MC
Cytidine 5'-triphosphate, [ $\alpha$ - $^{33}$ P]-, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with amber gold dye. Shipped ambient. Store at 2–8 °C. Fresh lot: Every Other Friday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG608H100UC NEG608H250UC NEG608H001MC
Cytisine HCl, [3,5-³H(N)]- 15–40 Ci (0.555–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 90% ethanol under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1054025UC NET1054250UC
DAMGO, [tyrosyl-3,5-³H(N)]- 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 90% ethanol under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET902025UC NET902250UC NET902001MC
4-DAMP, [N-methyl-3H]- 60–87 Ci (2.22–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET1040250UC
Daunomycin, [³H(G)]- 1–20 Ci (37–740 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET582250UC
Dehydroepiandrosterone, [1,2,6,7-³H(N)]- 60–100 Ci (2.22–3.7 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET814250UC NET814001MC

Product	Size	Product No.
Dehydroepiandrosterone sulfate, sodium salt, [1,2,6,7-3H(N)]-60–100 Ci (2.22–3.7 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET860250UC NET860001MC
Deltorphin II (2-D-Ala), [tyrosyl-3,5-³H]- 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 0.1 N acetic acid:ethanol (8:2). Shipped in dry ice. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET1087050UC NET1087250UC
Dendrotoxin- $lpha$ -[ <sup>125</sup> I] 2200 Ci (81.4TBq)/mmol Packaged lyophilized Shipped Ambient. Store at -20°C (after reconstitution). Fresh Lot: Fourth Monday of each month	5μCi (185kBq) 10μCi (370kBq)	NEX434005UC NEX434010UC
Deoxyadenosine 5'-(α-thio) triphosphate, [35S]- 500 Ci (18.5 TBq)/mmol 10 mCi (370 MBq)/mL Packaged as a stabilized aqueous solution, containing 10mM tricine (pH 7.6) and 1mM DTT. Shipped in dry ice. Store at -20 °C or below. Fresh lot: First Tuesday of each month.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG034S250UC NEG034S001MC
Deoxyadenosine 5'-(α-thio) triphosphate, [³5S]-, (EasyTides) 1250 Ci (46.2 TBq)/mmol 12.5 mCi (462.5 MBq)/mL Packaged as a stabilized aqueous solution with a blue dye. Shipped ambient. Store at 2–8 °C or below. Fresh lot: First Tuesday of each month.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG734H250UC NEG734H001MC
Deoxyadenosine 5'-(\alpha-thio) triphosphate, [35S]- 1250 Ci (46.2 TBq)/mmol 12.5 mCi (462.5 MBq)/mL Packaged as a stabilized aqueous solution. Shipped in dry ice. Store at -20 °C or below. Fresh lot: First Tuesday of each month.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG034H250UC NEG034H001MC
Deoxyadenosine 5'-triphosphate, tetrasodium salt, [8-3H(N)]- 10–25 Ci (370–925 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET268250UC NET268001MC
Deoxyadenosine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq)	BLU512A250UC
Deoxyadenosine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-, (EasyTides) 800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq)	NEG512A250UC

Product	Size	Product No.
Deoxyadenosine 5'-triphosphate, [ $\alpha^{-32}$ P]-, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU512H100UC BLU512H250UC BLU512H500UC BLU512H001MC
Deoxyadenosine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG512H100UC NEG512H250UC NEG512H500UC NEG512H001MC
Deoxyadenosine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]- 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU012H100UC BLU012H250UC BLU012H500UC BLU012H001MC
Deoxyadenosine 5'-triphosphate, [ $\alpha^{-32}$ P]-3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG012H100UC NEG012H250UC NEG012H500UC NEG012H001MC
Deoxyadenosine 5'-triphosphate, (cordycepin 5'-triphosphate), 3'-[α- <sup>32</sup> P]- 5000 Ci (185 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq)	BLU026250UC BLU026500UC
Deoxyadenosine 5'-triphosphate, (cordycepin 5'-triphosphate), 3'-[α-³²P]- 5000 Ci (185 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq)	NEG026250UC NEG026500UC
Deoxyadenosine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-, (EasyTides) 6000 Ci (222 TBq)/mmol 20 mCi (740 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU512Z250UC BLU51ZZ500UC BLU51ZZ001MC
Deoxyadenosine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-, (EasyTides) 6000 Ci (222 TBq)/mmol 20 mCi (740 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG512Z500UC NEG512Z001MC

Product	Size	Product No.
Deoxyadenosine 5'-triphosphate, $[\alpha^{-32}P]$ -6000 Ci (222 TBq)/mmol 20 mCi (740 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU012Z250UC BLU012Z500UC BLU012Z001MC
Deoxyadenosine 5'-triphosphate, $[\alpha^{-32}P]$ - 6000 Ci (222 TBq)/mmol 20 mCi (740 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG012Z250UC NEG012Z500UC NEG012Z001MC
Deoxyadenosine 5'-triphosphate, $[\alpha^{-33}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with amber gold dye. Shipped ambient. Store at 2 $-8$ °C or below. Fresh lot: Every Other Friday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG612H100UC NEG612H250UC NEG612H001MC
Deoxyadenosine 5'-triphosphate, $[\alpha^{-33}P]$ -3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Other Friday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG312H100UC NEG312H250UC NEG312H001MC
Deoxycytidine 5'-triphosphate, tetrasodium salt, [5,5'-3H]- 40–70 Ci (1.48–2.59 TBq)/mmol 2.5 mCi (92.5 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in dry ice. Store at -20 °C or below.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET601A250UC NET601A001MC
Deoxycytidine 5'-triphosphate, ammonium salt, [5,5'-3H]-40–70 Ci (1.48–2.59 TBq)/mmol 1.0 mCi (37 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at –20°C.	250 μCi (9.25 MBq)	NET601E250UC
2'-Deoxycytidine-5'-triphosphate, tetraammonium salt, 5-[125]]iodo- 2200 Ci (81.4 TBq)/mmol Packaged in methanol:water (3:1). Shipped in dry ice. Store at -80 °C. Fresh lot: Third Monday of each month.	100 μCi (3.7 MBq) 1 mCi (37 MBq)	NEX074100UC NEX074001MC
Deoxycytidine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-, (EasyTides) 800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU513A250UC BLU513A500UC BLU513A001MC
Deoxycytidine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-, (EasyTides) 800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG513A250UC NEG513A500UC NEG513A001MC

Product	Size	Product No.
Deoxycytidine 5'-triphosphate, [ $\alpha^{-32}$ P]-800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU013A250UC BLU013A500UC BLU013A001MC
Deoxycytidine 5'-triphosphate, [α-³²P]-, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 mCi (18.5 MBq) 1 mCi (37 MBq)	BLU513H100UC BLU513H250UC BLU513H500UC BLU513H001MC
Deoxycytidine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG513H100UC NEG513H250UC NEG513H500UC NEG513H001MC
Deoxycytidine 5'-triphosphate, $[\alpha^{-32}P]$ -3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU013H100UC BLU013H250UC BLU013H500UC BLU013H001MC
Deoxycytidine 5'-triphosphate, $[\alpha^{-32}P]$ -3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG013H100UC NEG013H250UC NEG013H500UC NEG013H001MC
Deoxycytidine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 6000 Ci (222 TBq)/mmol 20 mCi (740 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU513Z250UC BLU513Z500UC BLU513Z001MC
Deoxycytidine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 6000 Ci (222 TBq)/mmol 20 mCi (740 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG513Z250UC NEG513Z500UC NEG513Z001MC
Deoxycytidine 5'-triphosphate, [α- <sup>32</sup> P]- 6000 Ci (222 TBq)/mmol 20 mCi (740 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU013Z250UC BLU013Z500UC BLU013Z001MC

Product	Size	Product No.
Deoxycytidine 5'-triphosphate, [ $\alpha^{-32}$ P]-6000 Ci (222 TBq)/mmol 20 mCi (740 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG013Z250UC NEG013Z500UC NEG013Z001MG
Deoxycytidine 5'-triphosphate, $[\alpha^{-33}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with amber gold dye. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Other Friday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG613H100U0 NEG613H250U0 NEG613H001M
Deoxycytidine 5'-triphosphate, $[\alpha^{-33}P]$ -3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Other Friday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG313H100UC NEG313H250UC NEG313H001M
Deoxy-D-glucose, 2-[1-14C]- 45–60 mCi (1.66–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (9:1). Shipped ambient. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC495050UC NEC495250UC NEC495001MC
Deoxy-D-glucose, 2-[1-14C]- 45–60 mCi (1.66–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in an aqueous solution. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC495A050UC NEC495A250UC NEC495A001M
Deoxy-D-glucose, 2-[14C(U)]- 250–350 mCi (9.25–13 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in an aqueous solution. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC720A050UC NEC720A250UC
Deoxy-D-glucose, 2-[³H(G)]- 5–10 Ci (185–370 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (9:1). Shipped ambient. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET328250UC NET328001MC
Deoxy-D-glucose, 2-[³H(G)]- 5–10 Ci (185–370 GBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET328A250UC NET328A001MC
Deoxy-D-glucose, 2-[1,2-3H(N)]- 25–50 Ci (0.925–1.85 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (9:1). Shipped ambient. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET549250UC NET549001MC NET549005MC

Product	Size	Product No.
Deoxy-D-glucose, 2-[1,2-3H(N)]- 25–50 Ci (0.925–1.85 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET549A250UC NET549A001MC NET549A005MC
Deoxyguanosine 5'-triphosphate [8-³H] 5-20 Ci/mmol (185-740 GBq/mmol) 1.0 mCi (37 MBq)/mL Packaged in ethanol:water (1:1) Shipped in dry ice. Store at –20°C.	1 mCi (37 MBq)	NET429V001M0
Deoxyguanosine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	500 μCi (18.5 MBq)	BLU514H500UC
Deoxyguanosine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq)	NEG514H250UC NEG514H500UC
Deoxyguanosine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-, (EasyTides) 6000 Ci (222 TBq)/mmol 20 mCi (740 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	500 μCi (18.5 MBq)	BLU514Z500UC
Deoxyguanosine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-, (EasyTides) 6000 Ci (222 TBq)/mmol 20 mCi (740 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	500 μCi (18.5 MBq)	NEG514Z500UC
Deoxyguanosine 5'-triphosphate, [α-32P]- 6000 Ci (222 TBq)/mmol 20 mCi (740 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	500 μCi (18.5 MBq)	BLU014Z500UC
Deoxyguanosine 5'-triphosphate, [ $\alpha^{-32}$ P]-6000 Ci (222 TBq)/mmol 20 mCi (740 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	500 μCi (18.5 MBq)	NEG014Z500UC
Deoxythymidine 5'-(α-thio) triphosphate Non-labeled material. Packaged as a stabilized aqueous solution. Shipped in dry ice. Store at -20 °C or below. Fresh lot: First Tuesday of each month.	5 μmol 25 μmol	NLP013005UM NLP013025UM

Product	Size	Product No.
Deoxythymidine 5'-triphosphate, tetrasodiumsalt, [methyl-³H]-10–25 Ci (370–925 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET221H250UC NET221H001MC NET221H005MC
Deoxythymidine 5'-triphosphate, tetrasodium salt, [methyl-³H]-70–90 Ci (2.59–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET221X250UC NET221X001MC NET221X005MC
Deoxythymidine 5'-triphosphate, tetrasodium salt, [methyl-³H]-70–90 Ci (2.59–3.33 TBq)/mmol 2.5 mCi (92.5 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in dry ice. Store at -80 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET221A250UC NET221A001MC NET221A005MC
Deoxythymidine 5'-triphosphate, tetrasodium salt, [methyl, 1',2'-³H]-90–120 Ci (3.33–4.44 TBq)/mmol 2.5 mCi (92.5 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in dry ice. Store at -80 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET520A250UC NET520A001MC NET520A005MC
Deoxythymidine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq)	BLU505A250UC
Deoxythymidine 5'-triphosphate, $[\alpha^{-32}P]$ -800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	BLU005A250UC BLU005A001MC
Deoxythymidine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU505H250UC BLU505H500UC BLU505H001MC
Deoxythymidine 5'-triphosphate, $[\alpha^{-32}P]$ -3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU005H250UC BLU005H500UC BLU005H001MC
Deoxythymidine 5'-triphosphate, $[\alpha^{-32}P]$ -3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG005H250UC NEG005H500UC NEG005H001MC

# De-Di

Product	Size	Product No.
Deoxythymidine 5'-triphosphate, [ $\alpha$ - $^{33}$ P]-, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with amber gold dye. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Other Friday.	1 mCi (37 MBq)	NEG605H001M
Deoxyuridine 5'-triphosphate, ammonium salt, [5-3H]- 5–30 Ci (0.185 –1.11 TBq)/mmol 1.0 mCi (37 MBq)/mL Packaged in ethanol:water (1:1) Shipped in dry ice. Store at –20°C.	250 μCi (9.25 MBq)	NET1197250UC
Desmethylimipramine hydrochloride, [benzene ring, 10,11-3H]-, (Desipramine) 50–80 Ci (1.85–2.96 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET593250UC
Desipramine See Desmethylimipramine hydrochloride.		
Dexamethasone, [1,2,4,-³H(N)]- 35–60 Ci (1.3–2.2 TBq)/mmol 1.0 mCi (37 MBq)/mL Packaged in ethanol, under nitrogen. Shipped in dry ice.	1 mCi (37 MBq)	NET1191001MC
Dexamethasone, [6,7-3H(N)]- 35–50 Ci (1.29–1.85 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET467250UC NET467001MC
Diazepam, [methyl-³H]-, (Valium®)* 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in in ethanol. Shipped in dry ice. Store at 2–8 °C. (*Registered trademark of Hoffman-LaRoche)	250 μCi (9.25 MBq)	NET564250UC
Digoxin, [³H(G)]- 15–40 Ci (0.555–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET222250UC
Dihydroalprenolol hydrochloride, levo-[ring, propyl- <sup>3</sup> H(N)]- 90–120 Ci (3.33–4.44 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET720025UC NET720250UC NET720001MC
Dihydrotestosterone ( $5\alpha$ androstan-17β-OL-3-one), [1,2,4,5,6, $7$ - $^3$ H(N)]-110 $-$ 150 Ci ( $4$ .07 $-$ 5.55 TBq)/mmol 1 mCi ( $37$ MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET453250UC NET453001MC

### Di-Di

Product	Size	Product No.
Dihydroxyphenylethylamine, 3,4-[7-3H]-, (Dopamine) 20–40 Ci (0.74–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 0.2 N acetic acid:ethanol (9:1) under argon in a vial that protects contents from UV light. Shipped in dry ice. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET131250UC NET131001MC
Dihydroxyphenylethylamine, [2,5,6,7,8-³H]- (Dopamine) >100 Ci (3.70TBq)/mmol 1 mCi (37 MBq)/ml Packaged in 0.2N acetic acid : ethanol (9:1) solution under argon, in a vial which protects the contents from Shipped in dry ice. Store at 5°C.	1 mCi (37 MBq) UV light	NET1160001M0
Dihydroxyphenylethylamine, 3,4-[ring-2,5,6-³H]-, (Dopamine) 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 0.2 N acetic acid:ethanol (9:1) under argon in a vial that protects contents from UV light. Shipped in dry ice. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET673250UC NET673001MC
Dihydroxyvitamin D3, 1α, 25-[26,27-³H]- 155–175 Ci (5.74–6.48 TBq)/mmol 0.01 mCi (0.37 MBq)/mL Packaged in toluene:ethanol (1:1) under argon in a silanized vial that protects contents from UV light. Shipped in dry ice. Store at -80 °C.	5 µСі (185 kBq)	NET626005UC
Diisopropylfluorophosphate, [1,3-³H]- >3.0 Ci (111 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in propylene glycol solution. Shipped ambient. Store at 2–8°C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET065250UC NET065001MC
Diltiazem, cis-(+)-[N-methyl-³H]- 60–87 Ci (2.22–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -80 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET847025UC NET847250UC NET847001MC
16α(+/-)-1-2,5,-Dimethoxy-4-2-aminopropane See (±)-DOI. 1,3-Di-O-Tolylguanidine Di		
See DTG.  5,5-Diphenylhydantoin, [4- <sup>14</sup> C]-, (Phenytoin)  40–60 mCi (1.48–2.22 GBq)/mmol  0.1 mCi (3.7 MBq)/mL  Packaged in ethanol.  Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq)	NEC246050UC
Diphosphopyridine Nucleotide See Nicotinamide Adenine. Dipotassium phosphate see phosphorus-32		
Diprenorphine, [15,16-3H]- 50–70 Ci (1.85–2.59 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in an ethanol solution under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1121025UC NET1121250UC

## Do-Ec

Product	Size	Product No.
(±)-DOI, [1 <sup>25</sup> I]- 2200 Ci (81.4 TBq/mmol)	100 μCi (3.7 MBq) 500 μCi (18.5 MBq)	NEX255100UC NEX255500UC
Packaged in ethanol. Shipped ambient. Store at 2—8 °C. Fresh lot: Fourth Monday of each month.		
Dofetilide,[N-Methyl-³H] 65 - 87 Ci (2.4-3.2 TBq)/mmol Packaged in ethanol. Shipped Dry Ice. Store at -20°C.	100μCi (3.7MBq)	NET1144100UC
Domperidone, [benzene ring -³H] 30 - 60 Ci (1.1 -2.2 TBq)/mmol Ethanolic solution at 1.0 mCi/ml (37 MBq/ml) stored under argon Shipped Dry Ice. Store at -20°C.	100μCi (3.7MBq)	NET662100UC
Disodium phosphate See Phosphorus-32.		
Dopamine See Dihydroxyphenylethylamine.		
8-hydroxy-DPAT, [propyl-2,3-ring-1,2,3-³H]- 100–200 Ci (3.7–7.4 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon in a vial that protects contents from UV light. Shipped in dry ice. Store at -80 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET929025UC NET929250UC NET929001MC
DPAT See Hydroxy-DPAT and Hydroxy-PIPAT.		
DPDPE See Enkephalin (2-D-penicillamine, 5-D-penicillamine).		
DPN See Nicotinamide Adenine Dinucleotide.		
DTG (1,3-di-o-tolylguanidine, [p-ring-³H]-), [5-³H(N)]- 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET986025UC NET986250UC NET986001MC
E217G See Estradiol 17ß-D-glucuronide.		
EBOB, [PROPYL-2,3-3H]- 25-60 Ci/mmol (925-2220 GBq/mmol) 1.0 mCi/ml (37 MBq/ml) Packaged in ethanol : triethylamine (99:1) Shipped Dry Ice. Store at -20°C.	250μCi (9.25MBq)	NET1069250UC
Ecdysone, $\alpha$ -[23,24-3H(N)]- 50—110 Ci (1.85—4.07 TBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol under nitrogen in a NENSure vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq)	NET621050UC
Echistatin [125]] - 2200 Ci (81.4TBq)/mmol Packaged lyophilized Shipped Ambient. Store at °4C or below. Fresh Lot: Fourth Monday of each month	10μCi (370kBq) 25μCi (925kBq)	NEX439010UC NEX439025UC

## EG-Ep

Product	Size	Product No.
EGF See Epidermal Growth Factor.		
Eledoisin (Lys <sup>4</sup> ), [ <sup>125</sup> I]-, Bolton-Hunter labeled 2200 Ci (81.4 TBq)/mmol Packaged in acetonitrile:TEAP (pH 2.5) containing 2-mercaptoethanol (35:65). Shipped in dry ice. Store at -20 °C. Fresh lot: Third Monday of odd months.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX218010UC NEX218050UC
Endothelin-1 (Tyr <sup>13</sup> ), [ <sup>125</sup> l]-, ([ <sup>125</sup> l]-ET-1), (human, porcine) 2200 Ci (81.4 TBq)/mmol Packaged in a tris-HCl buffer containing sodium chloride, Trasylol® and a stabilizer (pH 8.6). Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	5 μCi (185 kBq) 10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX259005UC NEX259010UC NEX259050UC
Enkephalin (2-D-alanine-5-D-leucine), [tyrosyl-3,5-³H(N)]- 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET648250UC
Enkephalin, (2-D-penicillamine, 5-D-penicillamine), [tyrosyl-2,6-³H(N)]-, (DPDPE) 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol containing 10 mM DTT under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET922050UC NET922250UC
Eotaxin, [1 <sup>25</sup> ]-, (human, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from sodium acetate buffer containing sucrose and BSA. Shipped ambient. Store at 2–8°C. Fresh lot: Second Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX314005UC NEX314025UC
Epibatidine, [125]-, ([125]-IPH) 2200 Ci (81.4 TBq)/mmol Packaged in 95% ethanol. Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of even month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX358010UC NEX358050UC
(+/-)-Epibatidine, [5,6-bicycloheptyl-³H]- 30—70 Ci (1.11—2.59 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon in a silanized vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1102025UC NET1102250UC
Epidermal Growth Factor, [1251]- (human, recombinant) >1128 Ci/mmol (>41.7 TBq/mmol) Packaged in glycerol Shipped Dry Ice. Store at -20°C or below. Fresh Lot: Third Monday of each month	5μCi (185kBq) 25μCi (925kBq)	NEX428005UC NEX428025UC
Epidermal Growth Factor, [125]-, ([125]]-EGF), (murine) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline containing glycine, BSA and Trasylol®. Shipped ambient. Store at 2–8 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX160010UC NEX160050UC

# Ep-Es

Product	Size	Product No.
Epinephrine, levo-[N-methyl-³H]- 55–85 Ci (2.03–3.15 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 0.2 N acetic acid:ethanol (9:1) under argon in a vial that protects contents from UV light. Shipped in dry ice. Store at -80 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET623250UC NET623001MC
Erythromycin, [N-methyl-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC777050UC NEC777250UC
3,17β-Estradiol, $16\alpha$ -[ $^{125}$ l]iodo-2200 Ci (81.4 TBq)/mmol Packaged in ethanol in a vial that protects contents from UV light. Shipped ambient. Store at 2–8 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX144010UC NEX144050UC
3,17 $\beta$ -Estradiol, $16\alpha$ -[ $^{125}$ l]iodo- $^{220}$ Ci (8.14 TBq)/mmol Packaged in ethanol in a vial that protects contents from UV light. Shipped ambient. Store at 2–8 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85MBq)	NEX144L010UC NEX144L050UC
Estradiol-6-(0-carboxymethyl)oximino-(2-[125]], iodohistamine) 2200 Ci (81.4TBq)/mmol Packaged in ethanol. Shipped Ambient. Store at °4C. Fresh Lot: Third Monday of each month	10 μCi (370kBq) 50 μCi (1.85MBq)	NEX438010UC NEX438050UC
Estradiol, [2,4,6,7,16,17-3H(N)]- 110–170 Ci (4.07–6.29 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET517250UC NET517001MC
Estradiol, [2,4,6,7-3H(N)]- 70–115 Ci (2.59–4.25 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET317250UC NET317001MC
Estradiol, [6,7-3H(N)]- 40–60 Ci (1.48–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET013250UC NET013001MC NET013005MC
Estradiol 17β-D-glucuronide, [estradiol-6,7-³H(N)]- 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (9:1). Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET1106050UC NET1106250UC
Estrone, [2,4,6,7-3H(N)]- 50–100 Ci (1.85–3.7 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET319250UC NET319001MC

#### Es-Fi

Product	Size	Product No.
Estrone sulfate, ammonium salt, [6,7-3H(N)]-40-60 Ci (1.48-2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET203250UC
Ethylcarboxamidoadenosine, 5'-N-[adenine-2,8-³H]- 15–30 Ci (0.555–1.11 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (7:3). Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET811250UC
Ethylmaleimide, N-[ethyl-1- <sup>14</sup> C]- 20–40 mCi (0.74–1.48 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in pentane in a sealed ampoule. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq)	NEC454050UC
Exendin, [125]-, (9–39) 2200 Ci (81.4 TBq)/mmol Packaged in tris-HCl (pH 8.6) containing sodium chloride, BSA and Trasylol®:n-propanol (1:1). Shipped ambient. Store at 2–8 °C. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX335010UC NEX335050UC
EXPRE <sup>35</sup> S <sup>35</sup> S Protein Labeling Mix, [ <sup>35</sup> S]-, (EasyTag) >1000 Ci (37 TBq)/mmol 11 mCi (407 MBq)/mL Packaged in a stabilized aqueous solution. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every third Monday.	2 mCi (74 MBq) 7 mCi (259 MBq) 14 mCi (518 MBq)	NEG772002MC NEG772007MC NEG772014MC
EXPRE <sup>35</sup> S <sup>35</sup> S Protein Labeling Mix, [ <sup>35</sup> S]- >1000 Ci (37 TBq)/mmol 11 mCi (407 MBq)/mL Packaged in 50 mM tricine (pH 7.4) and 10 mM 2-mercaptoethanol. Shipped in dry ice. Store at -20°C or below. Fresh lot: Every third Monday.	2 mCi (74 MBq) 7 mCi (259 MBq) 14 mCi (518 MBq)	NEG072002MC NEG072007MC NEG072014MC
Farnesyl pyrophosphate, triammonium salt, [1-3H(N)]- 15–30 Ci (0.555–1.11 TBq)/mmol 0.5 mCi (18.5 MBq)/mL Packaged in 70% ethanol in an 0.025 M ammonium bicarbonate solution under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1042050UC NET1042250UC NET1042001MC
FGF Basic See Fibroblast Growth Factor Basic.		
Fibrinogen (Human), [125] 52-81Ci/mmol (1.9-3.0 TBq/mmol) Packaged lyophilized Shipped Ambient. Store at -20°C (after reconstitution). Fresh Lot: Fourth Monday of each month	110μCi (4.07MBq)	NEX430110UC
Fibroblast Growth Factor Basic, [1251]-, ([1251]-FGF basic), (human, recombinant) >70 µCi (2.59 MBq)/µg Packaged in HEPES buffer (pH 7.4) containing gelatin and sodium chloride. Shipped in dry ice. Store at -20 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX268010UC NEX268050UC

## Fl-Ga

Product	Size	Product No.
Flunitrazepam, [methyl-³H]- 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped ambient. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET567025UC NET567250UC NET567001MC
Follicle Stimulating Hormone, [ $^{125}$ I]-, ([ $^{125}$ I]-FSH), human 90–200 $\mu$ Ci (3.33–7.4 MBq)/ $\mu$ g Packaged in phosphate-buffered saline containing EDTA, BSA and sodium azide. Shipped in dry ice. Store at -20 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX173010UC NEX173050UC
Formaldehyde, [ $^{14}$ C]- 40–60 mCi (1.48–2.22 GBq)/mmol Packaged in formaldehyde:water (1:99) in a sealed ampoule. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC039H050UC NEC039H250UC NEC039H001MC
Fractalkine, [125]-, (human, recombinant) 1000–2200 Ci (37–81.4 TBq)/mmol Packaged in 50 mM sodium acetate with 50 mM n-actylmethionine, 5% sucrose and 0.25% BSA. Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX368010UC NEX368025UC
FSH See Follicle Stimulating Hormone.		
GABA See Aminobutyric acid.		
Gabapentin, [³H]- 150–220 Ci (5.55–8.14 TBq)/mmol 1.0 mCi (37 MBq)/mL Packaged in ethanol:water (1:1) Shipped in dry ice. Store at –20°C.	1 mCi (37 MBq)	NET1182001MC
Galactose 1-phosphate, disodium salt, D-[14C(U)]- 250–360 mCi (9.25–13.3 GBq)/mmol 0.2 mCi (0.74 MBq)/mL Packaged in ethanol:water (7:3). Shipped ambient. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC579010UC NEC579050UC
Galanin, [1251]-, (2–11), (porcine) 2200 Ci (81.4 TBq)/mmol Packaged in 0.1% TFA and 0.4% BSA:46% 1-propanol and 54% acetonitrile (1:1). Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX416010UC NEX416025UC
Galanin, [1251]-, (human) 2200 Ci (81.4 TBq)/mmol Packaged in 0.1% acetic acid:ethanol (70:30) containing 0.25% BSA. Shipped in dry ice. Store at -80 °C. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX333010UC NEX333050UC
Galanin, [1251]-, (porcine) 2200 Ci (81.4 TBq)/mmol Packaged in 0.1% acetic acid:ethanol (70:30) containing 0.25% BSA. Shipped in dry ice. Store at -80 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX243010UC NEX243050UC

### Ga-Gl

Product	Size	Product No.
Gamma ATP, Kinase See Adenosine triphosphate.		
Gamma-Interferon-Inductible Protein 10 See IP-10.		
Gastric Inhibitory Polypeptide, [125]-, (human) 2200 Ci (81.4 TBq)/mmol Packaged in 50 mM sodium acetate (pH 4.0) containing 50 mM N-acetylmethionine, 5% sucrose and 0.25% Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq) BSA.	NEX402010UC NEX402025UC
Gastrin I (Tyr¹²), [¹²⁵l]-, (human) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline containing glycine, BSA and Trasylol®. Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX176010UC NEX176050UC
Gastrin Releasing Peptide (porcine), [125 -Tyr15]-[125 ]-GRP(p) 2200 Ci (81.4TBq)/mmol Packaged lyophilized Shipped Dry Ice. Store at °4C or below. Fresh Lot: Fourth Monday of each month	10µСі (370kBq) 25µСі (925kBq)	NEX421010UC NEX421025UC
GBR 12935, [propylene-2,3-3H]- 40–60 Ci (1.48–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET918250UC NET918001MC
Geranylgeranyl pyrophosphate, triammonium salt, [1-3H(N)]- 10–30 Ci (0.37–1.11 TBq)/mmol 0.5 mCi (18.5 MBq)/mL Packaged in 70% ethanol in a 0.025 M ammonium bicarbonate solution under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET1052050UC NET1052250UC
Ghrelin (His), [125]-, (human) 2200 Ci (81.4 TBq)/mmol Packaged in 0.1% TFA with 0.4% BSA:46% 1-propanol and 54% acetonitrile (1:1). Shipped in dry ice. Store at -20 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX388010UC NEX388025UC
Ghrelin [Tyr <sup>4</sup> ], [125]- 2200 Ci (81.4 TBq)/mmol Packaged in 0.1% TFA and 0.4% BSA:46% 1-propanol and 54% acetonitrile (1:1). Shipped in dry ice. Store at -20 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX417010UC NEX417025UC
Glibenclamide, glyburide, [cyclohexyl-2,3-³H(N)]- 40–70 Ci (1.48–2.59 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1024025UC NET1024250UC
Glucagon, [1251]-, receptor grade 2200 Ci (81.4 TBq)/mmol Packaged in 1-propanol:tris buffer (pH 8.6) (1:1) containing sodium chloride, BSA and Trasylol®. Shipped ambient. Store at 2–8 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX207010UC NEX207050UC

# Gl-Gl

Product	Size	Product No.
Glucagon-like Peptide-1, [1251]-, ([1251]-GLP-1), (7–36) 2200 Ci (81.4 TBq)/mmol Packaged in 1-propanol: 0.1% TFA:acetonitrile (23:50:27) containing BSA. Shipped ambient. Store at 2–8 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX308010UC NEX308050UC
Glucagon-like Peptide-2, [1251]-, ([1251]-GLP-2) 2200 Ci (81.4 TBq)/mmol Packaged in 0.2 M N-acetylmethionine, 50 mM phosphoric acid and 0.25% BSA:1-propanol (1:1). Shipped in dry ice. Store at 2–8 °C or below. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX390010UC NEX390025UC
Glucosamine, N-acetyl-D-[1- <sup>14</sup> C]- 50–62 mCi (1.85–2.29 GBq)/mmol 0.2 mCi (7.4 MBq)/mL Packaged in ethanol:water (2:98) Shipped in blue ice. Store at –20°C.	50 μCi (1.85 MBq)	NEC723V050UC
Glucosamine hydrochloride, D-[6-3H(N)]- 20–45 Ci (0.74–1.66 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET190A250UC NET190A001MC NET190A005MC
Glucose, D-[1-14C]- 45–60 mCi (1.66–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (9:1). Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC043X050UC NEC043X250UC NEC043X001MC
Glucose, D-[14C(U)]- 1–5 mCi (37–185 MBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (9:1). Shipped ambient. Store at 2–8 °C.	1 mCi (37 MBq)	NEC042A001MC
Glucose, D-[14C(U)]- 250–360 mCi (9.25–13.3 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (9:1). Shipped ambient. Store at 2–8 °C.	5 mCi (185 MBq)	NEC042B005MC
Glucose, D-[14C(U)]- 250–360 mCi (9.25–13.3 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (9:1). Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC042X050UC NEC042X250UC NEC042X001MC
Glucose, D-[14C(U)]- 250-360 mCi (9.25-13.3 GBq)mmol 0.2 mCi (7.4 MBq)/mL Steri-packaged in ethanol : water (3:97) Shipped ambient. Store at -20oC	250 μCi (9.25 MBq)	NEC042V250UC
Glucose, D-[2-3H]- 20–30 Ci (0.74–1.11 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (9:1). Shipped in dry ice. Store at -20 °C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET238C001MC NET238C005MC

### Gl-Gl

Product	Size	Product No.
Glucose, D-[3-3H]- 10–20 Ci (370–740 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (9:1).	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET331C250UC NET331C001MC NET331C005MC
Shipped in dry ice. Store at -20 °C.		
Glucose, D-[3-3H]- 10–20 Ci (370–740 GBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET331A250UC NET331A001MC NET331A005MC
Glucose, D-[5-3H(N)]- 10–20 Ci (370–740 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (9:1). Shipped ambient. Store at -20 °C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET531001MC NET531005MC
Glucose, D-[6-3H(N)]- 25–50 Ci (0.925–1.85 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (9:1). Shipped in dry ice. Store at -20 °C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET100C001MC NET100C005MC
Glucose, L-[1-14C]- 45–55 mCi (1.66–2.03 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (9:1). Shipped ambient. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC478050UC NEC478250UC
Glucose 1-phosphate, dipotassium salt, $\alpha$ -D-[ $^{14}$ C(U)]->200 mCi (7.4 GBq)/mmol 0.2 mCi (7.4 MBq)/mL Packaged in ethanol:water (7:3). Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC390010UC NEC390050UC
Glutamic acid, L-[14C(U)]- >250 mCi (9.25 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC290E050UC NEC290E250UC NEC290E001MC
Glutamic acid, L-[3,4-³H]- 40–80 Ci (1.48–2.96 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (2:98). Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET490250UC NET490001MC NET490005MC
Glutamine, L-[3,4-3H(N)]- 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET551250UC NET551001MC NET551005MC
Glutathione, [35S]- >30 Ci (1.11 TBq)/mmol 2 mCi/mL (74 MBq)/mL Packaged in 10 mM DTT. Shipped in dry ice. Store at -20°C or below. Fresh lot: Every third Monday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq)	NEG029100UC NEG029250UC

# Gl-Gr

Product	Size	Product No.
Glutathione, [glycine-2- <sup>3</sup> H]- 20–50 Ci (0.74–1.85 TBq)/mmol 1 mCi (37 MBq)/mL	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET282050UC NET282250UC
Packaged in an aqueous solution with 10 mM DTT under argon in a silanized vial that protects contents fr Shipped in dry ice. Store at -80 $^{\circ}$ C.	om UV light.	
Glycerol, [14C(U)]- 125–180 mCi (4.62–6.66 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (1:1). Shipped ambient. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC441X050U0 NEC441X250U0
Glycerol 3-phosphate, ammonium salt, L-[14C(U)]->100 mCi (>3.7 GBq)/mmol 0.05 mCi (1.85 MBq)/mL Packaged in ethanol:water (2:98) Shipped in dry ice. Store at -20°C.	50 μCi (1.85 MBq)	NEC608V050UC
Glycine, [14C(U)]- >100 mCi (3.7 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC276E050UC NEC276E250UC
Glycine, [2-3H]- 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (2:98). Shipped ambient. Store at 2–8 °C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET004001MC NET004005MC
GM-CSF See Granulocyte Macrophage-Colony Stimulating Factor.		
Gonadotropin Releasing Hormone See Luteinizing Hormone Releasing Hormone.		
GR 65630, [N-methyl-³H]- 60–87 Ci (2.22–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon in vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1011025UC NET1011250UC
GR 113808, [N-methyl- <sup>3</sup> H]- 60–85 Ci (2.22–3.15 TBq)/mmol 0.02 mCi (740 kBq)/mL Packaged in 100% ethanol. Shipped in dry ice.	10 μCi (370 kBq)	NET1152010UC
Granulocyte Macrophage-Colony Stimulating Factor, [125]-, ([125]]-rGM-CSF), (human, recombinant) 70–120 μCi (2.59–4.44 MBq)/μg Packaged in sodium phosphate buffer (pH 6.8) containg sucrose, BSA and a stabilizer. Shipped in dry ice. Store at -80 °C. Fresh upon request.	5 μCi (185 kBq) 10 μCi (370 kBq) 25 μCi (925 kBq)	NEX249005UC NEX249010UC NEX249025UC
GRO alpha/MGSA, [125I]- 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from sodium acetate containing sucrose, BSA and a stabilizer. Shipped ambient. Store at 2–8 °C. Fresh lot: Third Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX321005UC NEX321025UC

### Gr-Gu

Product	Size	Product No.
Growth Hormone, [ $^{125}$ ]-, ([ $^{125}$ ]-hGH), (human) 85–130 $\mu$ Ci (3.15–4.81 MBq)/ $\mu$ g Packaged in phosphate-buffered saline containing glycine, BSA and Trasylol®. Shipped in dry ice. Store at -20 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85MBq)	NEX100010UC NEX100050UC
Guanosine 3',5'-cyclic phosphate, ammonium salt, [8-³H-]-5–15 Ci (185–555 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET337250UC NET337001MC
Guanosine 3',5'-cyclic phosphoric acid, 2'-O-succinyl, [125 ]iodotyrosine, methyl ester 2200 Ci (81.4 TBq)/mmol Packaged in 1-propanol:0.02 M sodium acetate (pH 6.0) (1:1). Shipped ambient. Store at 2–8 °C. Fresh lot: First Monday of each month.	1 μCi (37 kBq) 5 μCi (185 kBq) 25 μCi (925 kBq)	NEX131001UC NEX131005UC NEX131025UC
Guanosine 5'-diphosphate, trisodium salt, [8,5'-3H]- 25–50 Ci (0.925–1.85 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET966250UC NET966001MC
Guanosine 5'-(γ-thio) triphosphate, [35]- 1250 Ci (46.2 TBq)/mmol 12.5 mCi (462.5)/mL Packaged in 10 mM tricine buffer (pH 7.6) with 10 mM DTT. Shipped in dry ice. Store at -20 °C or below. Fresh lot: First Tuesday of each month.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG030H250UC NEG030H001MC
Guanosine 5'- (γ-thio) triphosphate, [35S]- 1250Ci (46.2 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6) with 10 mM DTT Shipped Dry Ice. Store at -20°C or below. Fresh Lot: First Tuesday of each month	25μCi (925kBq) 1 mCi (3.7kBq)	NEG030X250UC NEG030X001MC
Guanosine 5'-triphosphate, tetrasodium salt, [8,5'-3H]- 25–50 Ci (0.925–1.85 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET546250UC NET546001MC NET546005MC
Guanosine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU006X250UC BLU006X500UC BLU006X001MC
Guanosine 5'-triphosphate, $[\alpha^{-3^2}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	BLU506H250UC BLU506H001MC

## Gu-Gu

Product	Size	Product No.
Guanosine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG506H250UC NEG506H001MC
Guanosine 5'-triphosphate, $[\alpha^{-32}P]$ - 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU006H250UC BLU006H500UC BLU006H001MC
Guanosine 5'-triphosphate, $[\alpha^{-32}P]$ -3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG006H250UC NEG006H500UC NEG006H001MC
Guanosine 5'-triphosphate, [γ-³²P]-, (EasyTides) 6000 Ci (222 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8°C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq)	BLU504Z250UC
Guanosine 5'-triphosphate, [γ- <sup>32</sup> P]-, (EasyTides) 5000 Ci (222 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq)	NEG504Z250UC
Guanosine 5'-triphosphate, [γ- <sup>32</sup> P]- 6000 Ci (222 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq)	BLU004Z250UC
Guanosine 5'-triphosphate, [γ-³²P]- 6000 Ci (222 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq)	NEG004Z250UC
Guanosine 5'-triphosphate, $[\alpha^{-33}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with amber gold dye. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Other Friday.	100 µСі (3.7 МВq) 250 µСі (9.25 МВq) 1 mСі (37 МВq)	NEG606H100UC NEG606H250UC NEG606H001MC
Guanosine diphosphate fucose, [fucose-14C(U)]->200 mCi (7.4 GBq)/mmol 0.01 mCi (0.37 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEC640005UC NEC640025UC

#### Gu-Hm

Product	Size	Product No.
Guanosine diphosphate fucose, [fucose-2-3H(N)]- 15–35 Ci (0.555–1.29 TBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (7:3). Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET989050UC NET989250UC
Guanosine diphosphate mannose, [mannose-14C(U)]->200 mCi (7.4 GBq)/mmol 0.2 mCi (0.74 MBq)/mL Packaged in ethanol:water (7:3). Shipped in dry ice. Store at -20 °C. H2 or H3 Relaxin	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC536010UC NEC536050UC
See Relaxin.		
HCG See Chorionic Gonadotropin, (human).		
HEAT, [125]]- 2200 Ci (81.4 TBq)/mmol Packaged in ethanol:phosphate buffer (1:1). Shipped in dry ice. Store at -20 °C Fresh lot: Third Monday of each month.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq)	NEX182100UC NEX182250UC
Hemicholinium-3, diacetate salt, [methyl-³H]- >120 Ci (4.44 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol in a silanized vial. Shipped in dry ice. Store at -80°C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET884025UC NET884250UC
Hemokinin-1, [125]-, Bolton-Hunter labeled 2200 Ci (81.4 TBq)/mmol Packaged in 100 mM triethylammonium phosphate (pH 3.5):100% acetonitrile (73:27) with 0.35% 2-mercap Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq) toethanol.	NEX414010UC NEX414025UC
Heparin, sodium salt, [3H(G)]- 0.2–1 mCi (7.4–37 MBq)/mg Biological activity is >120 units/mg. Packaged as a crystalline solid in a screw-cap bottle. Shipped ambient. Store at 2–8 °C.	1 mCi (37 MBq)	NET476001MC
Hexadecyl-2-acetyl-sn-glyceryl-3-phosphorylcholine, 1-O-[acetyl-3H(N)]- 10–30 Ci (0.37–1.11 TBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol in a silanized vial. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET910250UC
Hexadecyl PAF See Hexadecyl-2-acetyl-sn-glyceryl-3-phosphorylcholine.		
HGH See Growth Hormone, (human).		
Histamine dihydrochloride, [ring, methylenes-3H(N)]- 10–40 Ci (0.37–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:0.01 HCl (1:1) under nitrogen in a vial that protects contents from UV light. Shipped ambient. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET732250UC NET732001MC
HMG-CoA See Hydroxy-3-methylglutaryl coenzyme A.		

# Hy-If

Product	Size	Product No.
Hydrocortisone, [1,2,6,7-3H(N)]-, (cortisol, [1,2,6,7-3H(N)]-) 70–100 Ci (2.59–3.7 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET396250UC NET396001MC
Hydroxy-3-methylglutaryl coenzyme A, DL-3-[glutaryl-3- <sup>14</sup> C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.02 mCi (0.74 MBq)/mL Packaged in an aqueous solution (pH ~5.0). Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC642010UC NEC642050UC
Hydroxycholecalciferol See Hydroxyvitamin $D_3$ .		
Hydroxycholesterol, 25-[26,27-³H]- 75–87 Ci (2.78–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET674250UC
Hydroxytryptamine binoxalate, 5-[2- <sup>14</sup> C]-, (Serotonin binoxalate) 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (2:98) under argon in a vial that protects contents from UV light. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC225050UC NEC225250UC
Hydroxytryptamine creatinine sulfate, 5-[1,2-³H(N)]-, (Serotonin) 15–30 Ci (0.555–1.11 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (2:98) under argon in a vial that protects contents from UV light. Shipped on blue ice. Store at 2–8 °C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET498001MC NET498005MC
5-Hydroxytryptamine Trifluoroacetate, [³H]- >100 Ci (3.70 TBq)/mmol 1 mCi (37 MBq)/ml Packaged in Water:ethanol:TFA:mercaptoethanol (98:2:0.1:0.2) solution under nitrogen. Shipped in dry ice. Store at - 20°C	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1167250UC NET1167001MC
Hydroxyvitamin D <sub>3</sub> , 25-[26,27- <sup>3</sup> H]- 155–175 Ci (5.73–6.47 TBq)/mmol 0.01 mCi (0.37 MBq)/mL Packaged in toluene under nitrogen in foil-wrapped ampoule that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	5 μCi (185 kBq) 25 μCi (925 kBq) 50 μCi (1.85 MBq)	NET349005UC NET349025UC NET349050UC
Hypoxanthine monohydrochloride, [³H(G)]- 10–30 Ci (0.37–1.11 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET177001MC NET177005MC
I309, [125]]-, Bolton-Hunter labeled, (human, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from sodium acetate buffer (pH 4.2) containing sucrose and BSA. Shipped ambient. Store at -20 °C (after reconstitution). Fresh upon request.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX364005UC NEX364025UC
Ifenprodil, [phenyl-³H]- 40–80 Ci (1.48–2.96 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1089025UC NET1089250UC

### II-In

Product	Size	Product No.
See Interleukin.	252 81/2 25 112 \	
Imipramine hydrochloride, [benzene ring-³H(N)]- 40–70 Ci (1.48–2.59 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET576250UC
Indium-111 radionuclide 380–415 Ci (14.1–15.4 TBq)/mg Packaged as indium chloride in 0.05 M HCl. Shipped Ambient. Store Ambient. Half life: 2.83 days Fresh lot: Every Friday; Monday calibration day.	Custom Filled	NEZ304000MC
Indium-111 radionuclide 380–415 Ci (14.1–15.4 TBq)/mg Packaged as indium chloride in 0.05 M HCl. Shipped Ambient. Store Ambient. Half life: 2.83 days Fresh lot: Every Friday; Tuesday calibration day.	Custom Filled	NEZ304A000MC
Indium-111 radionuclide 380–415 Ci (14.1–15.4 TBq)/mg Packaged as indium chloride in 0.05 M HCI. Shipped Ambient. Store Ambient. Half life: 2.83 days Fresh lot: Every Friday; Wednesday calibration day.	Custom Filled	NEZ304B000MC
Indium-111 radionuclide 380–415 Ci (14.1–15.4 TBq)/mg Packaged as indium chloride in 0.05 M HCl. Shipped Ambient. Store Ambient. Half life: 2.83 days Fresh lot: Every Friday; Thursday calibration day.	Custom Filled	NEZ304C000MC
Indolylacetic acid, 3-, [5-3H(N)]- 15–30 Ci (0.56–1.11TBq)/mmol 1.0 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at –20°C.	250 μCi (9.25 MBq)	NET1175250UC
Indomethacin, [2-14C]- 20–40 mCi (0.74–1.48 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq)	NEC786050UC
Inositol See Phosphatidylinositol 4,5-bisphosphate.		
Inositol, myo-[1,2-³H(N)]- 45–80 Ci (1.66–2.96 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET906250UC NET906001MC NET906005MC
Inositol, myo-[2-3H(N)]- 10–25 Ci (370–925 GBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET114A250UC NET114A001MC NET114A005MC

## In-In

Product	Size	Product No.
Inositol, myo-[2-3H(N)]- 10–25 Ci (370–925 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (9:1).	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET114250UC NET114001MC NET114005MC
Shipped ambient. Store at -20 °C.Product Inositol, myo-[2-³H] with PT6-271	1 mCi (37 MBq)	NET1156001MC
10-20 Ci (0.37-0.74 TBq)/mmol 1.0 mCi (37 MBq)/ml Steri-packaged in aqueous solution containing a PT6-271 tablet. Shipped ambient. Store at 2°C	5 mCi (185 MBq)	NET1156005MC
Inositol-1,3,4,5-tetrakisphosphate, D-[inositol-1-3H(N)]- 15–30 Ci (0.555 –1.11 TBq)/mmol 0.01 mCi (0.37 MBq)/mL Packaged in a 50 mM ammonium phosphate buffer (pH 8.0) under nitrogen in a silanized vial. Shipped on blue ice. Store at 2–8 °C.	2 μCi (74 kBq) 5 μCi (185 kBq)	NET941002UC NET941005UC
Inositol-1,4,5-trisphosphate, D-[inositol-1-3H(N)]- 15–30 Ci (0.555–1.11 TBq)/mmol 0.01 mCi (0.37 MBq)/mL Packaged in a 10 mM ammonium phosphate buffer (pH 8.0) under nitrogen in a silanized vial. Shipped on blue ice. Store at 2–8 °C.	1 μCi (37 kBq) 5 μCi (185 kBq)	NET911001UC NET911005UC
INSL-3, [ $^{125}$ I]- 75–214 µCi (2.78–7.92 MBq)/µg Packaged in50mM sodium acetate, pH 4, 50 mM ascorbic acide, 50mM N-acetylmethionine, 5% sucrose and Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq) 0.25% BSA	NEX419010UC NEX419025UC
Insulin, [125]-(human, recombinant) 2200 Ci (81.4TBq)/mmol Packaged lyophilized Shipped Dry Ice. Store at °4C or below. Fresh Lot: Second Monday of each month	10μCi (370kBq) 50μCi (1.85MBq)	NEX420010UC NEX420050UC
Insulin, [1251]-, (porcine) 80–120 µCi (2.96–4.44 MBq)/µg Packaged lyophilized from sodium phosphate buffer containing glycine, BSA and Trasylol®. Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX104010UC NEX104050UC
Insulin (TyrA <sup>14</sup> ), [ <sup>125</sup> I]-, receptor grade, (porcine) 2200 Ci (81.4 TBq)/mmol Packaged in phosphate-buffered saline containing glycine, BSA and Trasylol®. Shipped in dry ice. Store at -20 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX196010UC NEX196050UC
Insulin-like Growth Factor-I, [1251]-, ([1251]-IGF-I), (human, recombinant) 1630–2800 Ci (60.3–103 TBq)/mmol Packaged lyophilized from phosphate-buffered saline (pH 5.2) containing glycine and BSA. Shipped ambient. Store at 2–8 °C. Fresh lot: Third Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX241005UC NEX241025UC
Insulin-like Growth Factor II (human, recombinant), [1251] 2200 Ci (81.4TBq)/mmol Packaged lyophilized Shipped ambient. Store at °4C or below. Fresh Lot: Second Monday of each month	5μCi (185kBq) 25μCi (925kBq)	NEX429005UC NEX429025UC

#### In-lo

Product	Size	Product No.
Interleukin-1β, [125]-, ([125]-IL-1β), (human, recombinant) 80–180 µCi (2.96–6.66 MBq)/µg Packaged in phosphate-buffered saline containing gelatin and 10% glycerin. Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	5 μCi (185 kBq) 10 μCi (370 kBq) 25 μCi (925 kBq)	NEX232005UC NEX232010UC NEX232025UC
Interleukin-2, [125]-, ([125]-IL-2), (human, recombinant) 20–50 µCi (0.74–1.85 MBq)/µg Packaged in acetonitrile:2-propanol:water (40:2:58) containing sodium perchlorate, calcium chloride, TFA and BSA. Shipped in dry ice. Store at -20 °C. Fresh lot: Second Monday of each month.	5 μCi (185 kBq) 10 μCi (370 kBq) 25 μCi (925 kBq)	NEX229005UC NEX229010UC NEX229025UC
Interleukin-6, [1251]-, ([1251]-IL-6), (human, recombinant) 68–160 µCi (2.51–5.92 MBq)/µg Packaged in sodium phosphate buffer (pH 6.8) containing sucrose, BSA and a stabilizer. Shipped in dry ice. Store at -20 °C. Fresh lot: Third Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX269005UC NEX269025UC
Interleukin-8, [1251]-, ([1251]-IL-8), (human, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged in solution of sodium acetate buffer (pH 4.2) containing sucrose and BSA. Shipped ambient. Store at 2–8 °C. Fresh lot: Third Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq) 100 μCi (3.7 MBq)	NEX277005UC NEX277025UC NEX277100UC
Interleukin-8 (IL-8), [125]-, (human, recombinant) receptor grade 2200 Ci (81 TBq)/mmol Lyophilized from a citric acid solution (0.01 M) containing lactose (5%), BSA (0.25%), and aprotinin (0.00751%). Packaged in TPX plastic vials. Shipped in dry ice. Store at 4°C or lower. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX443010UC NEX443025UC
Inulin, carboxyl-, [carboxyl-1 <sup>4</sup> C]- 1–3 mCi (37–111 MBq)/g Packaged as a crystalline solid in a screw-cap bottle. Shipped ambient. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC164A050UC NEC164A250UC NEC164A001MC
Inulin, methoxy-, [methoxy-³H]- 100–500 mCi (3.7–18.5 GBq)/g Packaged as a crystalline solid in a screw-cap bottle. Shipped ambient. Store at -80 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET086L250UC NET086L001MC NET086L005MC
lodine-125 radionuclide Carrier Free 0.1 mCi (3.7 MBq)/mL Packaged in 0.1 M NaOH (pH 12–14) Shipped ambient. Store ambient. Half life: 60.14 days Fresh lot: Wednesday of every other week.	1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq) 20 mCi (740 MBq) 25 mCi (925 MBq)	NEZ033001MC NEZ033002MC NEZ033005MC NEZ033010MC NEZ033020MC NEZ033025MC
lodine-125 radionuclide Carrier Free 100 mCi (3.7 GBq)/mL Packaged in 10 <sup>-5</sup> M NaOH (pH 8–11) Shipped ambient. Store ambient. Half life: 60.14 days Fresh lot: Wednesday of every other week.	1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq) 20 mCi (740 MBq) 25 mCi (925 MBq)	NEZ033A001MC NEZ033A002MC NEZ033A005MC NEZ033A010MC NEZ033A020MC NEZ033A025MC

## lo-lo

Product	Size	Product No.
lodine-125 radionuclide	1 mCi (37 MBq)	NEZ033H001MC
Carrier Free	2 mCi (74 MBq)	NEZ033H002MC
350 mCi (12.9 GBq)/mL	5 mCi (185 MBq)	NEZ033H005MC
Packaged in 0.1 M NaOH (pH 12–14).	10 mCi (370 MBq)	NEZ033H010MC
Shipped ambient. Store ambient.	20 mCi (740 MBq)	NEZ033H020MC
Half life: 60.14 days	25 mCi (925 MBq)	NEZ033H025MC
Fresh lot: Wednesday of every other week.	1 C' (27 MD )	NIEZOZZI OOANAC
lodine-125 radionuclide Carrier Free	1 mCi (37 MBq) 2 mCi (74 MBq)	NEZ033L001MC NEZ033L002MC
350 mCi (12.9 GBq)/mL	5 mCi (185 MBg)	NEZ033L002MC
Packaged in 10 <sup>-5</sup> M NaOH (pH 8–11).	10 mCi (370 MBq)	NEZO33L005MC
Shipped ambient. Store ambient.	20 mCi (740 MBq)	NEZ033L020MC
Half life: 60.14 days	25 mCi (925 MBq)	NEZ033L025MC
Fresh lot: Wednesday of every other week.	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
lodine-131 radionuclide	2 mCi (74 MBq)	NEZ035A002MC
>5 Ci (185 GBq)/mg	5 mCi (185 MBq)	NEZ035A005MC
Packaged in 0.1 M NaOH (pH 12–14).	10 mCi (370 MBq)	NEZ035A010MC
Shipped ambient. Store ambient.	25 mCi (925 MBq)	NEZ035A025MC
Half life: 8.04 days		
Fresh lot: Every Monday.		
Iodine-131 radionuclide	2 mCi (74 MBq)	NEZ035H002MC
>5 Ci (185 GBq)/mg	5 mCi (185 MBq)	NEZO35H005MC
>500 mCi (18.5 MBq)/mL Packaged in 0.1 M NaOH (pH 12—14).	10 mCi (370 MBq) 25 mCi (925 MBq)	NEZ035H010MC NEZ035H025MC
Shipped ambient. Store ambient.	23 IIICI (323 MDQ)	INLZUSSTIUZSIVIC
Half life: 8.04 days		
Fresh lot: Every Monday		
lodoantipyrine, 4-[N-methyl-14C]-	50 μCi (1.85 MBq)	NEC712050UC
40–60 mCi (1.48–2.22 GBq)/mmol	250 μCi (9.25 MBq)	NEC712250UC
0.1 mCi (3.7 MBq)/mL	1 mCi (37 MBq)	NEC712001MC
Packaged in ethanol in a vial that protects contents from UV light.		
Shipped ambient. Store at -20 °C.		
lodoarylazidoprazosin		
See Prazosin.		
lodoclonidine, p-[1251]-, (2-[(2,6,-dichloro-4-[1251]iodophenyl)imino]imidazolidine)	100 μCi (3.7 MBq)	NEX253100UC
2200 Ci (81.4 TBq)/mmol	500 μCi (18.5 MBq)	NEX253500UC
Packaged in ethanol.		
Shipped ambient. Store at 2–8 °C. Fresh lot: Fourth Monday of each month.		
Iodocyanopindolol		
See Cyanopindolol, iodo.		
	200uCi (7.4MRa)	NEX072200UC
		NEX072500UC
	· [- · · · · · · · · · · · · · · · · · ·	
Shipped Ambient.Store at °4C.		
Fresh Lot: Fourth Monday of each month		
lododeoxycytidine		
See Deoxycytidine.		
lodo-MK-801		
See MK-801.		
lododeoxyuridine, 5-[125]]- 2200 Ci (81.4TBq)/mmol Packaging in water:ethonal:methanol (53:56:1) Shipped Ambient.Store at °4C. Fresh Lot: Fourth Monday of each month lododeoxycytidine See Deoxycytidine. lodo-MK-801	200μCi (7.4MBq) 500μCi (18.5 MBq)	NEX072200UC NEX072500UC

#### lo-Is

Product	Size	Product No.
lodopindolol		
See Pindolol.		
lodoproxyfan-[ <sup>125</sup> I] 2200 Ci (81.4TBq)/mmol	10μCi (370kBq) 25μCi (925kBq)	NEX436010UC NEX436025UC
Packaged in ethanol.	23μC1 (923κBq)	NEX4300230C
Shipped Dry Ice. Store at -20°C or below.		
Fresh Lot: First Monday of each month		
lodosulpride-[1251], (dopamine D2 antagonist)	25µCi (925kBq)	NEX441025UC
2200 Ci (81.4TBq)/mmol	50μCi (1.85MBq)	NEX441050UC
Packaged in ethanol.	100μCi (3.7MBq)	NEX441100UC
Shipped Ambient. Store at °4C or below.	250μCi (9.25MBq)	NEX441250UC
Fresh Lot: First Monday of each month		
See Phosphatidylinositol 4,5-bisphosphate.		
IP-10, [125l]-, Bolton-Hunter labeled, (human, recombinant)	5 μCi (185 kBq)	NEX348005UC
2200 Ci (81.4 TBq)/mmol Packaged in sodium acetate buffer (pH 4.2) containing sucrose and BSA.	25 μCi (925 kBq)	NEX348025UC
Shipped in dry ice. Store at -20 °C.		
Fresh lot: Third Monday of each month.		
Irazapine		
See PN 200-110.		
ron-55 radionuclide	1 mCi (37 MBq)	NEZ043001MC
>3 Ci (111 GBq)/g	2 mCi (74 MBq)	NEZ043002MC
Packaged as iron chloride in 0.5 M HCl.	5 mCi (185 MBq)	NEZ043005MC
Shipped ambient. Store ambient.	10 mCi (370 MBq)	NEZ043010MC
Half life: 2.7 years		
Iron-59 radionuclide	500 μCi (18.5 MBq)	NEZ037500UC
>5 Ci (185 GBq)/g Packaged as iron chloride in 0.5 M HCl.	1 mCi (37 MBq) 2 mCi (74 MBq)	NEZ037001MC NEZ037002MC
Shipped ambient. Store ambient.	2 mCi (74 MBq) 5 mCi (185 MBq)	NEZO37002MC
Half life: 44.6 days	3 mer (103 Mbq)	14L2037 003IVIC
Iron-59 radionuclide	1 mCi (37 MBq)	NEZ049001MC
>5 Ci (185 GBq)/g	2 mCi (74 MBq)	NEZ049002MC
1 mCi (37 MBq)/mL	5 mCi (185 MBq)	NEZ049005MC
Steri-packaged as iron chloride in 0.05 M H <sub>2</sub> SO <sub>4</sub> . Not for human use.		
Shipped ambient. Store ambient.		
Half life: 44.6 days		
Isoleucine, L-[¹⁴C(U)]- >220 mCi (8.1 GBq)/mmol	50 μCi (1.85 MBq)	NEC278E050UC
>220 incr (8.1 GBq)/ininioi 0.025 mCi (925 kBq)/mL		
Steri-packaged in ethanol:water (2:98).		
Shipped in dry ice.		
Isopentenyl pyrophosphate, triammonium salt, [4-14C]-	10 μCi (370 kBq)	NEC773010UC
40–60 mCi (1.48–2.22 GBq)/mmol	50 μCi (1.85 MBq)	NEC773050UC
0.2 mCi (0.74 MBq)/mL	, .	
Packaged in ethanol:0.15 N ammonium hydroxide (1:1) under nitrogen.		
Shipped in dry ice. Store at -20 °C.		

## It-Ld

Product	Size	Product No.
I-TAC, [125]-, (human, recombinant) 80–270 μCi (2.96–9.99 MBq)/μg Packaged in 50 mM sodium acetate, 50 mM acetylmethionine, 5% sucrose and 0.25% BSA (pH 4.0). Shipped in dry ice. Store at -20 °C. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX376010UC NEX376025UC
JE, [1 <sup>25</sup> I]-, Bolton-Hunter labeled, (MCP-1, murine, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged in sodium acetate (pH 4.2) containing sucrose and BSA. Shipped in dry ice. Store at -20 °C. Fresh lot: Fourth Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX313005UC NEX313025UC
Juvenile Hormone III, [10-³H(N)]- 10–20 Ci (370–740 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in toluene:hexane (4:1) in a sealed silanized ampoule. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq)	NET586050UC
Kainic acid, [vinylidene-³H]- 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (2:98) under argon in a vial that protects contents from UV light. Shipped in blue ice. Store at 2–8 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET875025UC NET875250UC NET875001MC
Kallidin (Des, Arg¹º), [3,4-prolyl-3,4-³H(N)]- 60—120 Ci (2.22—4.44 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 0.1 N acetic acid:ethanol (1:1) under nitrogen. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET1064050UG NET1064250UG
Kallidin (Des, Arg¹º, Leuº), [3,4-prolyl-3,4-³H(N)]- 50—120 Ci (1.85-4.44 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 0.1 N acetic acid:ethanol (8:2) in a silanized vial. Shipped in dry ice. Store at 2–8°C.	25 μCi (925 kBq) 50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET1096025U0 NET1096050U0 NET1096250U0
Ketanserin hydrochloride, [ethylene-³H]-, (R41 468) 60–90 Ci (2.22–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET791025UC NET791250UC NET791001MC
Ketoglutaric acid, sodium salt, α-[1- <sup>14</sup> C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (2:8). Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq)	NEC597050UC
Lactic acid, sodium salt, L-[14C(U)]->100 mCi (3.7 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (7:3). Shipped ambient. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC599050UC NEC599250UC
L-Amino acid mixture, [14C(U)]- 0.1 mCi (3.7 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC445E050U NEC445E250U NEC445E001M

#### Le-Li

Product	Size	Product No.
Leptin, [1251]-, (human, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged in 1-propanol:0.1% TFA:acetonitrile (23:50:27) containing BSA. Shipped in dry ice. Store at -20 °C. Fresh lot: Third Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX347005UC NEX347025UC
Leptin, [125]-, (murine, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged in 1-propanol:0.1% TFA: acetonitrile (23:50:27) containing BSA. Shipped in dry ice. Store at -20 °C. Fresh lot: Second Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX340005UC NEX340025UC
Leucine, L-[14C(U)]- >300 mCi (11.1 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC279E050UC NEC279E250UC NEC279E001MC
Leucine, L-[3,4,5-³H(N)]- 100–150 Ci (3.7–5.56 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET460250UC NET460001MC NET460005MC
Leucine, L-[3,4,5-3H(N)]- 100–150 Ci (3.7–5.56 TBq)/mmol 5 mCi (185 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET460A001MC NET460A005MC
Leucine, L-[4,5-³H(N)]- 40–60 Ci (1.48–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET135H250UC NET135H001MC NET135H005MC
Leukotriene B <sub>4</sub> , [5,6,8,9,11,12,14,15-3H(N)]- 120–240 Ci (4.44–8.88 TBq)/mmol 0.01 mCi (0.37 MBq)/mL Packaged in ethanol under argon in a silanized vial. Shipped in dry ice. Store at -80 °C.	5 μCi (185 kBq) 25 μCi (925 kBq)	NET852005UC NET852025UC
Leukotriene C <sub>4</sub> , [14,15,19,20-3H(N)]- 100–240 Ci (3.7–8.88 TBq)/mmol 0.01 mCi (0.37 MBq)/mL Packaged in methanol:water:acetic acid (65:35:0.1) (pH 6.8) with BHT under argon. Shipped in dry ice. Store at -80 °C.	5 μCi (185 kBq) 25 μCi (925 kBq)	NET1018005UC NET1018025UC
Leukotriene D <sub>4</sub> , [14,15,19,20-³H(N)]- 100–240 Ci (3.7–8.88 TBq)/mmol 0.01 mCi (0.37 MBq)/mL Packaged in methanol:water:acetic acid (65:35:0.1) (pH 6.8) with BHT under argon. Shipped in dry ice. Store at -80 °C.	5 μCi (185 kBq) 25 μCi (925 kBq)	NET1019005UC NET1019025UC
Linoleic acid, [1-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC501050UC NEC501250UC

# Li-Lu

Product	Size	Product No.
Linolenic acid, 9,12,15-[1-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq)	NEC779050UC
LPA See Lysophosphatidic acid.		
LSD See Lysergic acid diethylamide.		
LTB <sub>4</sub> See Leukotriene B <sub>4</sub> .		
LTC <sub>4</sub> See Leukotriene C <sub>4</sub> .		
LTD $_4$ See Leukotriene D $_a$ .		
Luteinizing Hormone Releasing Hormone (D-Trp <sup>6</sup> ), [ <sup>125</sup> l]-, ([ <sup>125</sup> l]-LH-RH) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from 50 mM sodium phosphate, 0.2 M NaCl, 1 M glycine and stabilizers. Shipped ambient. Store at -20 °C (after reconstitution). Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX365010UC NEX365050UC
Luteinizing Hormone Releasing Hormone (Tyr <sup>5</sup> ), [1 <sup>25</sup> I]-, ([1 <sup>25</sup> I]-LH-RH) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline (pH 7.4) containing BSA, glycine and Trasylol®. Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX163010UC NEX163050UC
Lutetium-177 radionuclide  ~20 Ci (740 GBq)/µg  Packaged as lutetium chloride in 0.05 M HCl.  Shipped ambient. Store ambient.  Half life: 6.71 days  Fresh lot: Every week; Thursday calibration day.	Custom filled	NEZ307000MC
Lutetium-177 radionuclide  ~20 Ci (740 GBq)/µg  Packaged as lutetium chloride in 0.05 M HCl.  Shipped ambient. Store ambient.  Half life: 6.71 days  Fresh lot: Every week; Friday calibration day.	Custom filled	NEZ307A000MC
Lutetium-177 radionuclide ~20 Ci (740 GBq)/µg Packaged as lutetium chloride in 0.05 M HCl. Shipped ambient. Store ambient. Half life: 6.71 days Fresh lot: Every week; Monday calibration day.	Custom filled	NEZ307B000MC
Lutetium-177 radionuclide ~20 Ci (740 GBq)/µg Packaged as lutetium chloride in 0.05 M HCl. Shipped ambient. Store ambient. Half life: 6.71 days Fresh lot: Every week; Tuesday calibration day.	Custom filled	NEZ307C000MC

## Ly-Ma

Product	Size	Product No.
LY 171555 See Quinpirole.		
LY 94939 See Nisoxetine.		
Lysergic acid diethylamide, [N-methyl-³H]-60–87 Ci (2.22–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon in a vial that protects contents from UV light. Shipped in dry ice. Store at -80 °C.	250 μCi (9.25 MBq)	NET638250UC
(+)-Lysergic acid diethylamide, 2-[125 ]iodo-, ([125 ]-LSD) 2200 Ci (81.4 TBq)/mmol Packaged in ethanol in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEX199010UC NEX199050UC NEX199250UC
Lysine, L-[¹⁴C(U)]- >300 mCi (11.1 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC280E050UC NEC280E250UC NEC280E001MC
Lysine, L-[4,5-3H(N)]- 80—110 Ci (2.96—4.07 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2—8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET376250UC NET376001MC NET376005MC
Lysopalmitoyl phosphatidylcholine, L-1-[palmitoyl-1-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.05 mCi (1.85 MBq)/mL Packaged in toluene:ethanol (1:1) in a silanized vial. Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC683010UC NEC683050UC
Lysophosphatidic acid, 1-oleoyl-[oleoyl-9,10-³H]- 30–60 Ci (1.11–2.22 TBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in hexane:isopropanol:water:acetic acid (3:6:1:0.01) (v/v) in a silanized vial. Shipped in dry ice. Store at -20 °C. Macrophage Inflammatory Protein	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET1100050UC NET1100250UC
See MIP-1.  Malonyl coenzyme A, [malonyl-2-1 <sup>4</sup> C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.01 mCi (0.37 MBq)/mL  Packaged in aqueous HCl solution (pH ~3.5) under argon.  Shipped in dry ice. Store at -80 °C.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEC612005UC NEC612025UC
Mamba Intestinal Toxin-1, [125]-Bolton-Hunter labeled [125]-MIT-1 2200 Ci (81.4TBq)/mmol Packaged in a solution of 50 mM sodium acetate at pH 4 containing 50 mM N-acetylmethionine, 5% sucrose ar Shipped Dry Ice. Store at -20°C . Fresh Lot: First Monday of each month	10µСі (370kBq) 25µСі (925kBq) id .25% BSA.	NEX414010UC NEX414025UC

## Ma-Me

Product	Size	Product No.
Manganese-54 radionuclide >20 Ci (74 GBq)/g Packaged in 0.5 M HCl. Shipped ambient. Store ambient. Half life: 313 days	200 μCi (7.4 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq) 2 mCi (74 MBq)	NEZ040200UC NEZ040500UC NEZ040001MC NEZ040002MC
Manning's Compound See Vasopressin V <sub>1A</sub> antagonist.		
Mannitol, D-[1- <sup>14</sup> C]- 45–60 mCi (1.66–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (9:1). Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC314050UC NEC314250UC
Mannitol, D-[1-3H(N)]- 10–30 Ci (0.37–1.11 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (9:1). Shipped ambient. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET101250UC NET101001MC NET101005MC
Mannose, D-[2-³H(N)]- 15–30 Ci (0.555–1.11 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET570A001M0 NET570A005M0
Mazindol, [4'-³H]- 15–30 Ci (0.555–1.11 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET816250UC
MCH See Melanin Concentrating Hormone.		
MCP-1 See Monocyte Chemoattractant Protein and JE [125].		
MeATP, $\alpha, \beta$ - See $\alpha, \beta$ -Methylene-ATP.		
Melanin Concentrating Hormone, [1251]-, ([1251]-MCH), (human, mouse, rat) 2200 Ci (81.4 TBq)/mmol Packaged in 0.17 M acetic acid with 0.2% BSA:acetonitrile (90:10) and a stabilizer in a silanized vial. Shipped in dry ice. Store at -80 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX373010UC NEX373050UC
Melanin Concentrating Hormone (Phe <sup>13</sup> , Tyr <sup>19</sup> ), [ <sup>125</sup> I]-, (Phe <sup>13</sup> [ <sup>125</sup> I]Tyr <sup>19</sup> -MCH), (human, mouse, rat) 2200 Ci (81.4 TBq)/mmol Packaged in water:acetonitrile (90:10) with trace acetic acid, BSA and a stabilizer. Shipped in dry ice. Store at -80 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX375010UC NEX375050UC
Melanin Concentrating Hormone-1 Receptor antagonist, [125]-, ([125]-hMCH-1R), (human) 2200 Ci (81.4 TBq)/mmol Packaged in 0.17 M acetic acid, 0.1 M N-acetyl-methionine and 0.2% BSA:acetonitrile (9:1). Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX406010UC NEX406025UC

#### Me-Me

Product	Size	Product No.
Melatonin, 2-[125]jiodo- 2200 Ci (81.4 TBq)/mmol Packaged in ethanol in a vial that protects contents from UV light. Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of odd months.	50 μCi (1.85 MBq) 100 μCi (3.7 MBq) 250 μCi (9.25 MBq)	NEX236050UC NEX236100UC NEX236250UC
Mephenytoin, S [4-14C]- 50–62 mCi (1.85–2.30 GBq)/mmol 0.05 mCi (1.85 MBq)/mL Packaged in ethanol. Shipped in dry ice.	50 μCi (1.85 MBq)	NEC843050UC
Metastin, [125]-, (45–54) 2200 Ci (81.4 TBq)/mmol Packaged in 50 mM sodium acetate (pH 4.0), 50 mM N-acetylmethionine with 5% sucrose and 2.5% BSA. Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX395010UC NEX395025UC
Methionine See EXPRE <sup>35</sup> S <sup>35</sup> S.		
Methionine, L-[35S]-, cell labeling grade >600 Ci (22.2 TBq)/mmol 31.5 mCi (1065.5 MBq)/mL Packaged in 10 mM 2-mercaptoethanol. Shipped in dry ice. Store at -20°C or below.	5 mCi (185 MBq) 10 mCi (370 MBq)	NEG009L005MC NEG009L010MC
Methionine, L-[35S]->800 Ci (29.6 TBq)/mmol 11 mCi (407 MBq)/mL Packaged in 10 mM 2-mercaptoethanol. Shipped in dry ice. Store at -20°C or below.	1 mCi (37 MBq) 5 mCi (185 MBq)	NEG009H001MC NEG009H005MC
Methionine, L-[35S]-, (EasyTag) >1000 Ci (37 TBq)/mmol 10.2 mCi (377.4 MBq)/mL Packaged in a stabilized aqueous solution with blue dye. Shipped ambient. Store at 2–8 °C or below.	500 μCi (18.5 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NEG709A500UC NEG709A001MC NEG709A005MC
Methionine, L-[35S]- >1000 Ci (37 TBq)/mmol 10.2 mCi (377.4 MBq)/mL Packaged in 50 mM tricine and 10 mM 2-mercaptoethanol. Shipped on dry ice. Store at -20°C or below.	500 μCi (18.5 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NEG009A500UC NEG009A001MC NEG009A005MC
Methionine, L-[35S]- >1000 Ci (37 TBq)/mmol 43.3 mCi (1602 MBq)/mL Packaged in 50 mM tricine and 10 mM 2-mercaptoethanol. Shipped on dry ice. Store at -20°C or below.	5 mCi (185 MBq) 10 mCi (370 MBq)	NEG009C005MC NEG009C010MC
Methionine, L-[35S]- >1000 Ci (37 TBq)/mmol 11 mCi (407 MBq)/mL Packaged in 10 mM 2-mercaptoethanol. Shipped in dry ice. Store at -20°C or below.	1 mCi (37 MBq) 5 mCi (185 MBq)	NEG009T001MC NEG009T005MC

## Me-Me

Product	Size	Product No.
Methionine, L-[methyl-³H]- 70–85 Ci (2.59–3.15 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.4) containing 10 mM 2-mercaptoethanol under argon. Shipped in dry ice. Store at -80 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET061X250UC NET061X001MC NET061X005MC
α,β-Methylene-ATP, tetrasodium salt, [2,8-³H]- 15–35 Ci (0.555–1.29 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1) in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1068025UC NET1068250UC
Methyl α-D-glucopyranoside, [glucose- <sup>14</sup> C(U)]- 250–350 mCi (9.25–12.9 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (9:1). Shipped ambient. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC659050UC NEC659250UC
Methyl-4-phenylpyridinium acetate, [N-methyl-³H]-, (MPP (+)) 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol in a silanized vial. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET914050UC NET914250UC
Methylaminoisobutyric acid, $\alpha$ -[1-\dangle C]- 40-60 mCi (1.48-2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in 0.01 N HCl in a silanized vial. Shipped ambient. Store at 2-8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC671050UC NEC671250UC
Methyl-D-glucose, 3-O-[methyl- <sup>14</sup> C]- 30–60 mCi (1.11–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (9:1). Shipped ambient. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC377050UC NEC377250UC
Methylene Adenosine 5'-triphosphate, $\alpha, \beta$ See $\alpha, \beta$ -Methylene-ATP.		
Methylhistamine dihydrochloride, N- $\alpha$ -[methyl- $^3$ H]- 45–90 Ci (1.66–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:0.01 N HCl (70:30) under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1027025UC NET1027250UC
Methylspiperone, [N-methyl-³H]- 60–90 Ci (2.22–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon in a vial that protects contents from UV light. Shipped in dry ice. Store at -80 °C.	250 μCi (9.25 MBq)	NET856250UC
2' Methylthio Adenosine 5'-Diphosphate, [-³³P]- 3000 Ci (111 TBq)/mmol Packaged in 10mM Tricine pH 7.6 solution Shipped Dry Ice. Store at -20°C. Fresh Upon Request.	250μCi (9.25MBq) 1 mCi (3.7kBq)	NEG380H250UC NEG380H001MC

#### Me-Mi

Product	Size	Product No.
Methyl Nosylate - [Methyl-14C] 40 - 60 Ci (14.8 - 22.2 TBq)/mmol Packaged in Hexane: Ethyl Acetate Shipped Dry Ice. Store at -20°C.	1 mCi (3.7kBq)	NEC820001MC
Methyl Nosylate - [Methyl-³H] 60 - 87 Ci (22.2 -32.2 TBq) /mmol Packaged in Hexane : Ethyl Acetate Shipped Dry Ice. Store at -20°C.	50 mCi (1.85GBq) 100 mCi (3.7GBq)	NET1142050MC NET1142100MC
Methyltrienolone (R1881) Solid Shipped ambient. Store at -20 °C.	5 mg 20 mg	NLP005005MG NLP005020MG
Methyltrienolone, [17α-methyl-³H]-, (R1881) 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET590250UC NET590001MC
Metribolone See Methyltrienolone.		
Mevalonolactone, RS-[2-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged under ethanol in a silanized vial. Shipped on blue ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC679050UC NEC679250UC
Mevalonolactone, RS-[5-3H]- 20–40 Ci (0.74–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Packaged under ethanol in a silanized vial. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET602250UC NET602001MC NET602005MC
MGSA See GRO alpha/MGSA.		
Mibolerone Solid Available only with purchase of NET919.	5 mg	NLP024005MG
Mibolerone, [17α-methyl-³H]- 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET919250UC NET919001MC
MIP-1α, [125]-, (human, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from a solution containing sodium acetate, sucrose, BSA and a stabilizer. Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX298005UC NEX298025UC
MIP-1β, (Leu³, Gly⁴²), [¹²⁵l]-, (human, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from a solution containing sodium acetate, sucrose, BSA and a stabilizer. Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX299005UC NEX299025UC

# Mi-Ms

Product	Size	Product No.
MIP-3 $\alpha$ , [ $^{125}$ I]-, (human, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged in acetonitrile:2-propanol:water (39:5:56) containing 0.12 M NaClO $_4$ , 0.2% BSA with CaCl $_2$ and TFA. Shipped in dry ice. Store at -20 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX371010UC NEX371025UC
MIP-3β, [1 <sup>25</sup> I]-, (human, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged in 50 mM sodium acetate, 50 mM n-acetylmethionine and 5% sucrose. Shipped in dry ice. Store at -20 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX370010UC NEX370025UC
MIT-1, [125]]-, Bolton-Hunter labeled 2200 Ci (81.4 TBq)/mmol Packaged in 50 mM sodium acetate (pH 4.0) containing 50 mM N-acetylmethionine, 5% sucrose and 0.25% BS Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq) A.	NEX410010UC NEX410025UC
MK-801, (+)-[3-3H]- 15–30 Ci (0.555–1.11 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET972025UC NET972250UC NET972001MC
MK-912, [methyl-³H]- 60–87 Ci (2.22–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -80 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1059025UC NET1059250UC
Monocyte Chemoattractant Protein-1 [125], Bolton-Hunter labeled, ([125]]-MCP-1), (human, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from sodium acetate buffer containing sucrose and BSA. Shipped in dry ice. Store at 2–8 °C (after reconstitution). Fresh lot: First Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX332005UC NEX332025UC
Monopotassium Phosphate See Phosphorous-32. Monosodium Phosphate		
See Phosphorous-32.  Motilin, [125]- 2200 Ci (81.4 TBq)/mmol Packaged in acetonitrile:water (35:65), 0.05 M 2-mercaptoethanol, 0.3% TFA and 0.3% BSA. Shipped in dry ice. Store at -20 °C. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX378010UC NEX378025UC
MPPF, [methyl- <sup>3</sup> H]- 60–87 Ci (2.22–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1109025UC NET1109250UC
α-MSH (Nle <sup>4</sup> , D-Phe <sup>7</sup> ), [ <sup>125</sup> I]- 2200 Ci (81.4 TBq)/mmol Packaged in a 1-propanol:tris-HCl buffer (pH 8.5) containing sodium chloride, BSA, Trasylol® and 2-mercaptoeth. Shipped in dry ice. Store at -20 °C. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq) anol.	NEX352010UC NEX352050UC

#### Mt-Ne

Product	Size	Product No.
MT II (His), [125]]- 2200 Ci (81.4 TBq)/mmol Packaged in 1-propanol:0.1% TFA:acetonitrile (23:50:27) with 0.4% BSA in a silanized vial. Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX374010UC NEX374050UC
Muscimol, 3-hydroxy-5-aminomethylisoxazole, [methylene-³H(N)]- 20–40 Ci (0.74–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1) under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET574250UC NET574001MC
Myristic acid, [9,10-3H(N)]-, (tetradecanoic acid) 10–60 Ci (0.37–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged under ethanol in a silanized vial. Shipped in dry ice. Store at 2–8 °C.	1 mCi (37 MBq) 5 mCi (185 MBq) 25 mCi (925 MBq)	NET830001MC NET830005MC NET830025MC
Myristoyl coenzyme A, [9,10-³H(N)]- 30–60 Ci (1.11–2.22 TBq)/mmol 0.2 mCi (7.4 MBq)/mL Packaged in 0.01 M sodium acetate, pH5.6:ethanol (1:1). Shipped in dry ice. Store under nitrogen, at –20°C	250 μCi (9.25 MBq)	NET1157250UC
NAAG, [glutamate-3,4-³H]- 40–80 Ci (1.48–2.96 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 0.1 M potassium phosphate. Shipped on blue ice. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET1082050UC NET1082250UC
NAD See Nicotinamide Adenine Dinucleotide.		
Nalaxone, [N-allyl-2,3-3H]- 40–70 Ci (1.48–2.59 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a silanized vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET719025UC NET719250UC
Naltrindole, [5',7'-³H]- 20–40 Ci (0.74–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1065025UC NET1065250UC
NECA See Ethylcarboxamidoadenosine.		
β-Nerve Growth Factor, [125I]-, (human, recombinant) 4770-9540 Ci/mmol (177-353 TBq/mmol) Packaged frozen in solution containing HPLC solvent and a citrate solution (0.01M), lactose (5%), bovine serum albumin (0.25%), and aprotinin (0.0075%) in silanized glass vials. Shipped in dry ice. Store at –20°C or lower. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX440010UC NEX440025UC

## Ne-Ne

Product	Size	Product No.
Neurokinin A, [125]-, ([125]-Substance K, [125]-NKA) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline (pH 6.0) containing glycine, BSA and Trasylol®. Shipped in dry ice. Store at -20 °C (after reconstitution). Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX252010UC NEX252050UC
Neurokinin B (MePhe7) His, [125I]-, ([125I]-NKB) 2200 Ci (81.4 TBq)/mmol Packaged in water:acetonitrile (65:35) containing TFA, BSA and 2-mercaptoethanol. Shipped in dry ice. Store at -20 °C. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX285010UC NEX285050UC
Neuromedin U-8, [1251]-, ([1251]-NMU-8) 2200 Ci (81.4 TBq)/mmol Packaged in 0.1% TFA with 0.4% BSA:46% 1-propanol and 54% acetonitrile (1:1). Shipped ambient. Store at 2–8 °C. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX392010UC NEX392025UC
Neuromedin U-25 (Tyr <sup>18</sup> ), [ <sup>125</sup> ]-, ([ <sup>125</sup> ]-NMU-25), (porcine) 2200 Ci (81.4 TBq)/mmol Packaged in aqueous 0.1% TFA with 0.4% BSA:46% 1-propanol and 54% acetonitrile (1:1). Shipped in dry ice. Store at -20 °C. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX383010UC NEX383025UC
Neuropeptide B23 (Des-Br), [1251]-, (11251]-NPB23), (human) 2200 Ci (81.4 TBq)/mmol Packaged in 0.1% TFA with 0.4% BSA:46% 1-propanol and 54% acetonitrile (1:1). Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX405010UC NEX405025UC
Neuropeptide FF (D-Tyr¹, N-MePhe³), [¹²⁵l]-, ([¹²⁵l]-NPFF) 2200 Ci (81.4 TBq)/mmol Packaged in 0.1% TFA with 0.4% BSA:46% 1-propanol and 54% acetonitrile (1:1). Shipped in dry ice. Store at -20 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX381010UC NEX381025UC
Neuropeptide S (Tyr <sup>10</sup> ), [ <sup>125</sup> I]-, ([ <sup>125</sup> I]-NPS), (human) 2200 Ci (81.4 TBq)/mmol Packaged in 0.1% TFA with 0.4% BSA:46% 1-propanol and 54% acetonitrile (50:50). Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX411010UC NEX411025UC
Neuropeptide W23, [125]-, ([125]-NPW23), (human) 2200 Ci (81.4 TBq)/mmol Packaged in 0.2 M N-AcMet, 50 mM phosphoric acid with 0.25% BSA:1-propanol (1:1). Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX403010UC NEX403025UC
Neuropeptide Y (Lys <sup>4</sup> ), [1251]-Bolton Hunter labeled, [1251]-NPY, (porcine) 2200 Ci (81.4TBq)/mmol Packaged in a solution containing n-propanol:0.1% TFA:acetonitrile, (23:50:27), with 0.2% BSA. Shipped Dry Ice. Store at -20°C. Fresh Lot: Second Monday of each month	10µСі (370kBq) 50µСі (1.85MBq)	NEX222010UC NEX222050UC
Neurotensin, [3,11-tyrosyl-3,5-³H(N)]- >90 Ci (3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol in a silanized vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET605025UC NET605250UC

#### Ne-Nk

Product	Size	Product No.
Neurotensin (Tyr³), [125 ]- 2200 Ci (81.4 TBq)/mmol Packaged in phosphate buffer (pH 4.7):ethanol (6:4). Shipped ambient. Store at -20 °C. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX198010UC NEX198050UC
Nicotinamide Adenine Dinucleotide, (NAD), [carbonyl-14C] 30–62 Ci (1.11–2.29 GBq)/mmol 0.05 mCi (1.85 MBq)/mL Steri-packaged in ethanol:water (2:98). Shipped in dry ice.	10 μCi (370 kBq)	NEC831010UC
Nicotinamide Adenine Dinucleotide, [14C(U)]->220 mCi (>8.15 GBq)/mmol 0.025 mCi (925 kBq)/mL Packaged in ethanol:water (2:98). Shipped in dry ice. Store at -20°C.	50 μCi (1.85 MBq)	NEC848050UC
Nicotinamide Adenine Dinucleotide, [adenine-2,8-³H]-, (NAD; DPN) 25–40 Ci (0.925–1.48 TBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET443H050UC NET443H250UC
Nicotinamide Adenine Dinucleotide, [adenylate-32P]-, (NAD; DPN) 800 Ci (29.6 TBq)/mmol 5 mCi (185 MBq)/mL Packaged in a stabilized aqueous solution. Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	BLU023X250UC BLU023X001MC
Nicotinamide Adenine Dinucleotide, [adenylate-32P]-, (NAD; DPN) 800 Ci (29.6 TBq)/mmol 5 mCi (185 MBq)/mL Packaged in a stabilized aqueous solution. Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG023X250UC NEG023X500UC NEG023X001MC
Nicotine, L-(-)-[N-methyl-³H]- 60–87 Ci (2.22–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET827025UC NET827250UC NET827001MC
Nisoxetine hydrochloride, [N-methyl-³H]- 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1084025UC NET1084250UC
Nitrendipine, [5-methyl-³H]- 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq)	NET741025UC
NKA or NKB See Neurokinin A or Neurokinin B.		

# N-Ol

Product	Size	Product No.
N,N,N-Triethylethan-Ammonium Bromide See Tetraethylammonium bromide.		
Nociceptin (Tyr <sup>14</sup> ), [ <sup>125</sup> I]- 2200 Ci (81.4 TBq)/mmol Packaged in phosphate-buffered saline containing glycine and BSA. Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX338010UC NEX338050UC
Nociceptin, [leucyl-3,4,5-³H]- 80–160 Ci (2.96–5.92 TBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in 0.1 N acetic acid:ethanol (8:2). Shipped in dry ice. Store at 2–8 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NET1130010U NET1130050U
Noradrenaline See Norepinephrine.		
Norepinephrine hydrochloride, DL-[7-3H(N)]- 5–15 Ci (185–555 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in 0.2 N acetic acid:ethanol (9:1) under nitrogen in a vial that protects contents from UV light.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET048250UC NET048001MC
Shipped ambient. Store at 2–8 °C.  Norepinephrine, levo-[7-³H]- 10–30 Ci (0.37–1.11 TBq)/mmol 1 mCi (37 MBq)/mL  Packaged in 0.2 N acetic acid:ethanol (9:1) under nitrogen in a vial that protects contents from UV light.  Shipped in dry ice. Store at -80 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET377250UC NET377001MG NET377005MG
Norepinephrine, levo-[ring-2,5,6-3H]- 40–80 Ci (1.48–2.96 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 0.2 N acetic acid:ethanol (9:1) under argon in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET678250UC NET678001MC NET678005MC
NPB, NPFF, NPS, NPW See Neuropeptide.		
Obestatin, [125]]- 2200 Ci (81.4 TBq)/mmol Packaged in 0.1% TFA and 0.4% BSA:46% 1-propanol and 54% acetonitrile (1:1). Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX415010U0 NEX415025U0
Fresh lot: First Monday of each month.  Oleic acid, [1-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL  Packaged in ethanol under nitrogen in a silanized vial.  Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC317050U0 NEC317250U0
Oleic acid, [9,10-3H(N)]- 15–60 Ci (0.555–2.22 TBq)/mmol 5 mCi (185 MBq)/mL Packaged in ethanol under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	1 mCi (37 MBq) 5 mCi (185 MBq) 25 mCi (925 MBq)	NET289001M0 NET289005M0 NET289025M0
Oleoyl coenzyme A, [oleoyl-1-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.02 mCi (0.74 MBq)/mL Packaged in 10 mM sodium acetate (pH 6.0):ethanol (1:1) under argon in a vial that protects contents from Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq) UV light.	NEC651010U0 NEC651050U0

#### Ol-Pa

Product	Size	Product No.
Oleoyl coenzyme A, [oleoyl-1-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.05 mCi (1.85 MBq)/mL Packaged in 10 mM sodium acetate (pH 6.0) in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC651A010UC NEC651A050UC
Omega Conotoxin See Conotoxin.		
Orexin A, [125]- 2200 Ci (81.4 TBq)/mmol Packaged in 0.1 M tris-HCl (pH 7.5) with 0.1% BSA. Shipped in dry ice. Store at -20 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX367010UC NEX367050UC
Ornithine Vasotocin Analog, [1251]-, ([1251]-OVTA) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline (pH 7.2) containing glycine, BSA and Trasylol®. Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of odd months.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX254010UC NEX254050UC
Ornithine, L-[1- <sup>14</sup> C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in 0.01 N HCl. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC710050UC NEC710250UC
Ouabain, [³H(G)]- 15–30 Ci (0.555–1.11 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET211250UC NET211001MC
OVTA See Ornithine Vasotocin Analog.		
Oxotremorine-M acetate, [methyl-³H]- 70–90 Ci (2.59–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET671250UC
Oxytocin (Tyr²), [125]- 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline (pH 7.2) containing glycine, BSA and Trasylol®. Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq)	NEX187010UC
Oxytocin, [tyrosyl-2,6-³H]- 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (8:2) under argon in a silanized vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET858050UC NET858250UC
PACAP 27, [125]- 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from a sodium phosphate buffer containing saline, glycine, BSA and stabilizers. Shipped in dry ice. Store at -20 °C. Fresh lot: Second Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX294005UC NEX294025UC

## Pa-Pa

Product	Size	Product No.
Palmitic acid, [1-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol in a silanized vial. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC075H050UC NEC075H250UC NEC075H001MC
Palmitic acid, [14C(U)]- >500 mCi (18.5 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol in a silanized vial. Shipped ambient. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC534050UC NEC534250UC
Palmitic acid, [9,10-3H(N)]- 30–60 Ci (1.11–2.22 TBq)/mmol 5 mCi (185 MBq)/mL Packaged in ethanol in a silanized vial. Shipped in dry ice. Store at -20 °C.	1 mCi (37MBq) 5 mCi (185 MBq) 25 mCi (925 MBq)	NET043001MC NET043005MC NET043025MC
Palmitoyl-carnitine chloride, L-[palmitoyl-1- <sup>14</sup> C]- 40–55 mCi (1.48–2.03 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (95:5) in a silanized vial. Shipped ambient. Store at -20 °C.	10 μCi (370 kBq)	NEC667010UC
Palmitoyl coenzyme A, [palmitoyl-1-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.02 mCi (0.74 MBq)/mL Packaged in a 0.1 M sodium acetate buffer (pH 6.0). Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC555010UC NEC555050UC
Palmityl cholesteryl ether See Cholesteryl hexadecyl ether.		
Pancreatic polypeptide, [125]-, (human) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline containing glycine and BSA. Shipped ambient. Store at 2–8 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX315010UC NEX315050UC
PAPS See Phosphoadenosine 5'-phosphosulfate.		
Parathyroid Hormone (Nle <sup>8</sup> , <sup>18</sup> , Tyr <sup>34</sup> ), [ <sup>125</sup> ]-, ([ <sup>125</sup> ]-PTH), (human, 1–34) 2200 Ci/ (81.4 TBq)/mmol Packaged in 50 mM sodium acetate (pH 4.2) containing 5% sucrose and 1% BSA. Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX397010UC NEX397025UC
Parathyroid Hormone amide (Nle <sup>8,21</sup> , Tyr <sup>34</sup> ), [ <sup>125</sup> l]-, ([ <sup>125</sup> l]-PTH amide), (rat, 1–34) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from sodium acetate buffer containing sucrose and BSA. Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX353010UC NEX353050UC
Paroxetine, [phenyl-6'- <sup>3</sup> H]- 15–30 Ci (0.555–1.11 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -80 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET869025UC NET86925UC NET869001MC

#### Pc-Ph

Product	Size	Product No.
PCP		
See Cytidine 3',5'-bis(phosphate).		
PDGF-BB (h,r), [1251] >800 Ci/mmol, (29.6 TBq)/mmol Packaged in ~5% acetic acid, 0.1%BSA and 0.01% Tween 80 in water. Shipped Ambient. Store at °4C. Fresh Lot: First Monday of each month	5μCi (185kBq) 25μCi (925kBq)	NEX433005UC NEX433025UC
(+)-Pentazocine, [ring-1,3-³H]- 25–60 Ci (0.925–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1056025UC NET105625UC NET1056001MC
Peptide YY, [1251]-, ([1251]-PYY), (porcine) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline containing glycine and BSA. Shipped ambient. Store at 2–8 °C. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX240010UC NEX240050UC
Peptide YY (Leu <sup>31</sup> , Pro <sup>34</sup> ), [ <sup>125</sup> l]-, ([ <sup>125</sup> l]-PYY), (porcine) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline containing glycine and BSA. Shipped ambient. Store at 2–8 °C. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX334010UC NEX334050UC
Peptide YY, [1 <sup>25</sup> I]-, ([1 <sup>25</sup> I]-PYY), (human) 2200 Ci (81.4 TBq)/mmol Packaged in 50 mM sodium phosphate (pH 7.4) containing BSA. Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX341010UC NEX341050UC
$PGD_2$ See Prostaglandin $D_2.$		
$PGE_2$ See Prostaglandin $E_2$ .		
$\operatorname{PGF}_{2\alpha}$ See Prostaglandin $\operatorname{F}_{2\alpha}$ .		
Phenylalanine, L-[14C(U)]->450 mCi (16.6 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC284E050UC NEC284E250UC
Phenylethylamine hydrochloride, β-[ethyl-1- <sup>14</sup> C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol under nitrogen in a foil-wrapped vial. Shipped ambient. Store at 2–8°C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC502050UC NEC502250UC
Phenytoin See 5,5,-Diphenylhydantoin.		
Phosphatidic acid, L- $\alpha$ -dipalmitoyl-[glycerol- <sup>14</sup> C(U)]- 100–200 mCi (3.7–7.4 GBq)/mmol 0.05 mCi (1.85 MBq)/mL Packaged in toluene:ethanol (1:1) in a silanized vial. Shipped in dry ice. Store at -20 °C.	5 μCi (185 kBq)	NEC799005UC

## Ph-Ph

Product	Size	Product No.
Phosphatidylcholine, L- $\alpha$ -dipalmitoyl-[dipalmitoyl-1- $^{14}$ C]-80—120 mCi (2.96—4.44 GBq)/mmol 0.05 mCi (1.85 MBq)/mL Packaged in toluene:ethanol (1:1) in a silanized vial. Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC682010UC NEC682050UC
Phosphatidylcholine, L- $\alpha$ -dipalmitoyl-[choline-methyl- $^3$ H]- 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in toluene:ethanol (1:1) in a silanized vial. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET654250UC
Phosphatidylcholine, L- $\alpha$ -1-palmitoyl-2-arachidonyl-[arachidonyl-1-1 <sup>4</sup> C]-40–60 mCi (1.48–2.22 GBq)/mmol 0.05 mCi (1.85 MBq)/mL Packaged in toluene:ethanol (1:1) under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC765010UC NEC765050UC
Phosphatidylethanolamine, L- $\alpha$ -1-palmitoyl-2-arachidonyl-[arachidonyl-1-\darksqc]-40-60 mCi (1.48-2.22 GBq)/mmol 0.05 mCi (1.85 MBq)/mL Packaged in toluene:ethanol (1:1) in a silanized vial. Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEC783010UC NEC783025UC
Phosphatidylinositol, [myo-inositol-2-³H(N)]- 5–20 Ci (185–740 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	1 μCi (37 kBq) 10 μCi (370 kBq) 50 μCi (1.85 MBq)	NET862001UC NET862010UC NET862050UC
Phosphatidylinositol-4,5-bisphosphate, [1-³H]-, (inositol-1-³H) 10–30 Ci (0.37–1.11 TBq/mmol) 0.5 mCi (18.5 MBq)/mL Packaged in 80% ethanol solution in a Sigma Cote™ treated vial. Shipped on blue ice. Store at 2–8 °C. Fresh upon request.	Custom filled	NET1135000MC
Phosphatidylinositol 4,5-bisphosphate, [inositol-2-³H(N)]-, (PIP2) 2–20 Ci (74–740 GBq)/mmol 0.01 mCi (0.37 MBq)/mL Packaged in methylene chloride:ethanol:water (20:10:1) under argon in a sealed silanized ampoule. Shipped in dry ice. Store at -20 °C.	5 μCi (185 kBq) 25 μCi (925 kBq)	NET895005UC NET895025UC
Phosphoadenosine 5'-phosphosulfate, 3'-[35S]-, (PAPS) 1–3 Ci (37–111 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C or below. Fresh lot: First Tuesday of each month.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq)	NEG010100UC NEG010250UC
Phospholipase A <sub>2</sub> Substrate See Arachidonic acid.		
Phosphorus-32 radionuclide 900–1100 mCi (33.3–40.7 GBq)/mmol Packaged as disodium phosphate in 1.0 mL water. Shipped ambient. Store ambient. Half life: 14.29 days Fresh lot: Every Wednesday.	1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq) 25 mCi (925 MBq)	NEX011001MC NEX011002MC NEX011005MC NEX011010MC NEX011025MC

#### Ph-Ph

Product	Size	Product No.
Phosphorus-32 radionuclide	1 mCi (37 MBq)	NEX055001MC
900–1100 mCi (33.3–40.7 GBq)/mmol	2 mCi (74 MBq)	NEX055002MC
Packaged as dipotassium phosphate in 1.0 mL water.	5 mCi (185 MBq)	NEX055005MC
Shipped ambient. Store ambient.	10 mCi (370 MBq)	NEX055010MC
Half life: 14.29 days	25 mCi (925 MBq	NEX055025MC
Fresh lot: Every Wednesday.	·	
Phosphorus-32 radionuclide	1 mCi (37 MBq)	NEX060001MC
900-1100 mCi (33.3-40.7 GBq)/mmol	2 mCi (74 MBq)	NEX060002MC
Packaged as monopotassium phosphate in 1.0 mL water.	5 mCi (185 MBq)	NEX060005MC
Shipped ambient. Store ambient.	10 mCi (370 MBq)	NEX060010MC
Half life: 14.29 days	25 mCi (925 MBq)	NEX060025MC
Fresh lot: Every Wednesday.		
Phosphorus-32 radionuclide	1 mCi (37 MBq)	NEX063001MC
900–1100 mCi (33.3–40.7 GBq)/mmol	2 mCi (74 MBq	NEX063002MC
Packaged as monosodium phosphate in 1.0 mL water.	5 mCi (185 MBq)	NEX063005MC
Shipped ambient. Store ambient.	10 mCi (370 MBq)	NEX063010MC
Half life: 14.29 days	25 mCi (925 MBq)	NEX063025MC
Fresh lot: Every Wednesday.		
Phosphorus-32 radionuclide	1 mCi (37 MBq)	NEX019001MC
1–60 Ci (0.037–2.22 TBq)/mmol	2 mCi (74 MBq)	NEX019002MC
Packaged as tetrasodium pyrophosphate in saline.	5 mCi (185 MBq)	NEX019005MC
Shipped ambient. Store ambient.	10 mCi (370 MBq)	NEX019010MC
Half life: 14.29 days	50 mCi (1.85 GBq)	NEX019050MC
Routinely Available		
Phosphorus-32 radionuclide	1 mCi (37 MBq)	NEX053001MC
8500–9120 Ci (314–337 TBq)/mmol	2 mCi (74 MBq)	NEX053002MC
Packaged as orthophosphoric acid in 1 mL water.	5 mCi (185 MBq)	NEX053005MC
Shipped ambient. Store ambient.	10 mCi (370 MBq)	NEX053010MC
Half life: 14.29 days	25 mCi (925 MBq)	NEX053025MC
Fresh lot: Every Wednesday.	50 mCi (1.85 GBq)	NEX053050MC
Phosphorus-32 radionuclide	25 mCi (925 MBq)	NEX053C025M0
8500–9120 Ci (314–337 TBq)/mmol	50 mCi (1.85 GBq)	NEX053C050M
>500 mCi (18.5 Gbq)/mL		
Packaged as orthophosphoric acid in water.		
Shipped ambient. Store ambient.		
Half life: 14.29 days		
Fresh lot: Every Friday.		
Phosphorus-32 radionuclide	1 mCi (37 MBq)	NEX053H001M
8500–9120 Ci (314–337 TBq)/mmol	2 mCi (74 MBq)	NEX053H002M
10 mCi (370 MBq)/mL	5 mCi (185 MBq)	NEX053H005M
Packaged as orthophosphoric acid in water.	25 mCi (925 MBq)	NEX053H025M
Shipped ambient. Store ambient.	50 mCi (1.85 GBq)	NEX053H050M
Half life: 14.29 days		
Fresh lot: Every Wednesday.		
Phosphorus-32 radionuclide	5 mCi (185 MBq)	NEX053S005M
8500–9120 Ci (314–337 TBq)/mmol	10 mCi (370 MBq)	NEX053S010M
150 mCi (5.55 GBq)/mL	15 mCi (555 MBq)	NEX053S015M
Packaged as orthophosphoric acid in water.	25 mCi (925 MBq)	NEX053S025M
Shipped ambient. Store ambient.		
Half life: 14.29 days		
Fresh lot: Every Wednesday.		

### Ph-Po

Product	Size	Product No.
Phosphorus-32 radionuclide 8500–9120 Ci (314–337 TBq)/mmol Packaged as orthophosphoric acid in 1 mL 0.02 M HCl. Shipped ambient. Store ambient. Half life: 14.29 days	1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq) 25 mCi (925 MBq)	NEX054001MC NEX054002MC NEX054005MC NEX054010MC NEX054025MC NEX054050MC
Fresh lot: Every Wednesday.  Phosphorus-33 radionuclide, carrier-free  40–158 Ci (1.48–5.84 TBq)/mg  ~100 mCi (370 MBq)/mL  Packaged as orthophosphoric acid in 1 mL HCl-free water.  Shipped ambient. Store ambient.  Half life: 25.4 days  Routinely Available	50 mCi (1.85 GBq) 100 μCi (3.7 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq)	NEZ080100UC NEZ080500UC NEZ080001MC NEZ080002MC NEZ080005MC NEZ080010MC
(-)-Pindolol, [1251]iodo- 2200 Ci (81.4 TBq)/mmol Packaged in ethanol:phenol (99:1) in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq)	NEX211100UC NEX211250UC
PIP2 See Phosphatidylinositol.		
PIPAT See Hydroxy-PIPAT.		
R (+) trans-7-hydroxy-PIPAT, [125]- 2200 Ci (81.4 TBq)/mmol Packaged in ethanol:aqueous ascorbic acid (80:20). Shipped in dry ice. Store at -80 °C. Fresh lot: Third Monday of even months.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEX307050UC NEX307250UC
Pirenzepine, [N-methyl-³H]- 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:25 mM tricine (7:3) under nitrogen. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET780025UC NET780250UC NET780001MC
Pituitary Adenylate Cyclase Activating Polypeptide See PACAP.		
PK 11195, [N-methyl-³H]- 60–90 Ci (2.22–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET885025UC NET885250UC NET885001MC
PN 200-110, (+)-[5-methyl-³H]- 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET863250UC
Polyethylene glycol (PEG) 4000, [¹⁴C]- 10–20 mCi (370–740 MBq)/g 0.05 mCi (1.85 MBq)/mL Packaged in ethanol:water (3:97). Shipped in blue Ice. Store at 5°C.	50 μCi (1.85 MBq)	NEC826050UC

#### Po-Pr

Product	Size	Product No.
Polyethylene glycol, [1,2-³H]- 0.5–2 mCi (18.5–74 MBq)/g Packaged as a crystalline solid in a screw-cap bottle. Shipped ambient. Store ambient.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET405250UC NET405001MC
Ponasterone A, [24,25,26,27-3H(N)]- 120–200 Ci (4.44–7.4 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq)	NET1070050UC
Potassium cyanide, [14C]- 40–60 mCi (1.48–2.22 GBq)/mmol Packaged as a crystalline solid in a vial that protects contents from UV light. Shipped ambient. Store at -20 °C.	1 mCi (37 MBq)	NEC079H001M0
Prazosin, [7-methoxy-³H]- 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:0.01 N HCl (1:1) under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET823025UC NET823250UC NET823001MC
Prazosin analog, [125]-iodoazido-, (lodoarylazidoprazosin) 2200 Ci (81.4 TBq)/mmol Packaged in acetonitrile:water (1:1). Shipped ambient. Store at 2–8 °C. Fresh lot: Fourth Monday of odd months.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq)	NEX219100UC NEX219250UC
Pregnan-3 $\alpha$ -ol-20-one, 5 $\alpha$ -[9,11,12- $^3$ H(N)]-45–75 Ci (1.66–2.78 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1047025UC NET1047250UC
Pregnenolone, [7-3H(N)]- 10–25 Ci (370–925 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET039250UC NET039001MC
Progesterone, [1,2,6,7-3H(N)]- 90–115 Ci (3.33–4.26 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET381250UC NET381001MC
Prolactin, [125]-, (rat) 20–50 μCi (0.74–1.85 MBq)/μg Packaged in phosphate-buffered saline containing glycine, BSA and Trasylol®. Shipped in dry ice. Store at -20 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX108010UC NEX108050UC
Proline, L-[¹⁴C(U)]- >250 mCi (9.25 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC285E050UC NEC285E250UC NEC285E001MC

### Pr-Pr

Product	Size	Product No.
Proline, L-[2,3-3H]- 25–55 Ci (0.925–2.03 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (2:98). Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET323250UC NET323001MC NET323005MC
Proline, L-[2,3,4,5-³H]- >75 Ci (2.78 TBq)/mmol  1 mCi (37 MBq)/mL  Packaged in ethanol:water (2:98).  Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET483250UC NET483001MC NET483005MC
Proline, L-[2,3,4,5-³H]- 85–130 Ci (3.15–4.81 TBq)/mmol 5 mCi (185 MBq)/mL Steri-packaged in aqueous solution under nitrogen. Shipped in blue ice. Store at 4°C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET483V001MC NET483V005MC
Promegestone, (R5020) Solid Shipped ambient. Store at -20 °C.	5 mg 20 mg	NLP004005MG NLP004020MG
Promegestone, $[17\alpha\text{-methyl-}^3\text{H}]$ -, (R5020) 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET555250UC NET555001MC
Propranolol, L-[4-³H]- 15–30 Ci (0.555–1.11 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET515250UC
Prostaglandin $D_{2r}$ [5,6,8,9,12,14,15- $^{3}$ H(N)]- 100–210 Ci (3.7–7.77 TBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in 70% ethanol under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 100 μCi (3.7 MBq)	NET616025UC NET616100UC
Prostaglandin E <sub>2</sub> , [5,6,8,11,12,14,15-³H(N)]- 100–200 Ci (3.7–7.4 TBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in 70% ethanol under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET428025UC NET428050UC NET428250UC
Prostaglandin $F_{2\alpha'}$ [5,6,8,9,11,12,14,15- $^3$ H(N)]- 150–240 Ci (5.55–8.88 TBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in 70% ethanol under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET433025UC NET433050UC NET433250UC
Protein A, [125]-, (human, recombinant) 70–100 µCi (2.59–3.7 MBq)/µg Packaged in phosphate buffer (pH 4.0) containing 35% ethanol. Shipped ambient. Store at 2–8 °C. Fresh lot: First and third Friday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX146010UC NEX146025UC

## Pr-Py

Product	Size	Product No.
Protein A, [125]-, (human, recombinant) 2–10 µCi (74–370 kBq)/µg Packaged in phosphate buffer (pH 4.0) containing 35% ethanol. Shipped ambient. Store at 2–8 °C. Fresh lot: First Monday of each month.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq)	NEX146L100UC NEX146L250UC
Protein G, [ $^{125}$ I]-, Bolton-Hunter labeled, (recombinant) 15–25 $\mu$ Ci (555–925 kBq)/ $\mu$ g Packaged in sodium phosphate-buffered saline (pH 5.2) containing glycine and BSA. Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 50 μCi (1.85 MBq) 100 μCi (3.7 MBq)	NEX237010UC NEX237050UC NEX237100UC
Protein Labeling See EXPRE <sup>35</sup> S <sup>35</sup> S or specific <sup>35</sup> S amino acid.		
Protein molecular weight markers, methylated, [methyl-14C]- 3–30 μCi (0.111–1.11 MBq)/mg 0.005 mCi (0.185 MBq)/mL Packaged in 10 mM sodium phosphate buffer (pH 7.2) containing 1% SDS, 1% 2-mercaptoethanol and 1 mM EDTA in a polypropylene combi-V-vial. Shipped in dry ice. Store at -20 °C.	1 μCi (37 kBq) 5 μCi (185 kBq)	NEC811001UC NEC811005UC
ProTx-II, [125I]-, (tarantula) 2200 Ci (81 TBq)/mmol Shipped in a solution containing HPLC solvent as well as sodium acetate (50 mM), ascorbic acid (50 mM), sucrose (5%), N-acetylmethionine (50 mM), and BSA (0.25%). Shipped in dry ice. Store at -20°C or lower. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX450010UC NEX450050UC
PTH See Parathyroid Hormone.		
Putrescine dihydrochloride, [1,4(N)-³H] 5-40 Ci (0.185 –1.48 TBq)/mmol 1.0 mCi (37 MBq)/mL Aqueous solution Shipped in blue ice. Store at 4°C.	1 mCi (37 MBq)	NET1185001MC
Pyranoside, methyl (α-D-gluco), [glucose- <sup>14</sup> C(U)]- 230–370 mCi (8.51–13.7GBq)/mmol 0.2 mCi (7.4 MBq)/mL Steri-packaged in ethanol:water (3:97). Shipped in dry ice. Store at –20°C.	250 μCi (9.25 MBq)	NEC659V250UC
Pyrilamine, [pyridinyl 5-³H]-, (Mepyramine) 20–30 Ci (0.74–1.11 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol with 0.25% ascorbic acid in a silanized vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET594250UC
Pyruvic acid, sodium salt, [1-14C]- 5–20 mCi (185–740 MBq)/mmol Packaged in an aqueous solution. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC255050UC NEC255250UC
Pyruvic acid, sodium salt, [2-14C]- 10–40 mCi (0.37–1.48 GBq)/mmol Packaged in an aqueous solution. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC256050UC NEC256250UC

## Py-Re

Product	Size	Product No.
PYY		
See Peptide YY.		
QRFP-43, [125]-, (human) 2200 Ci (81.4 TBq)/mmol Packaged in 0.1% TFA and 0.4% BSA:46% 1-propanol and 54% acetonitrile (1:1). Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX408010UC NEX408025UC
Quinpirole, [N-propyl-3H]- 30–70 Ci (1.11–2.59 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1085025UC NET1085250UC
Quinuclidinyl benzilate, L-[benzilic-4,4'-3H]- 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET656025UC NET656250UC NET656001MC
Quisqualic acid, [3-3H(N)]- 15–40 Ci (0.555–1.48 TBq)/mmol 0.20 mCi (7.41 MBq)/mL Packaged in ethanol:water (2:98) and less than 0.1% tetrabutylammonium acetate. Shipped in blue ice. Store at 4°C.	50 μCi (1.85 MBq)	NET1165050UC
R1881 See Methyltrienolone.		
R5020 See Promegestone.		
Raclopride, [methoxy-3H]- 60–87 Ci (2.22–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET975025UC NET975250UC NET975001MC
Radiolabeled nucleotides See specific nucleotide of interest.		
Radionuclides See specific nuclide of interest.		
RANTES, [1251]-, (human, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from sodium acetate containing sucrose, BSA and a stabilizer (pH 4.0–4.2). Shipped ambient. Store at 2–8 °C. Fresh lot: First Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX292005UC NEX292025UC
Rauwolscine, [methyl- <sup>3</sup> H]- 70–90 Ci (2.59–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol containing 0.25% ascorbic acid under nitrogen in a vial that protects contents from UV Shipped in dry ice. Store at -80 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq) light.	NET722025UC NET722250UC NET722001MC
H2 Relaxin, [125]-, Bolton-Hunter labeled 2200 Ci (81.4 TBq)/mmol Packaged in 50 mM sodium acetate (pH 4.0) containing 50 mM N-acetylmethionine, 5% sucrose and 0.25% Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq) BSA.	NEX409010UC NEX409025UC

#### Re-Ro

Product	Size	Product No.
H3 Relaxin, [ $^{125}$ I]- 75–214 $\mu$ Ci (2.78–7.92 MBq)/ $\mu$ g Packaged in 0.1% TFA and 0.4% BSA:46% 1-propanol and 54% acetonitrile (1:1). Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX418010UC NEX418025UC
Fresh lot: Third Monday of each month.		
Resiniferatoxin, [125]- 2200 Ci (81.4 TBq)/mmol Packaged in ethanol. Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX394010UC NEX394025UC
Resiniferatoxin, [³H]- 30–60 Ci (1.11–2.22 TBq)/mmol Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NET1132010UC NET1132050UC
Resveratrol, [1,3-benzenediol-2 <sup>3</sup> H]- 15-30 Ci (0.56- 1.11 TBq)/mmol 1 mCi (37 MBq)/ml Packaged in ethanol Shipped in dry ice. Store at -20°C.	1 mCi (37 MBq)	NET1200001MC
Retinoic Acid, [11,12-3H]-, 9-cis- 30–60 Ci (1.11–2.22 TBq)/mmol 0.2 mCi (7.4 MBq)/mL Packaged in 100% ethanol. Shipped in dry ice. Store under nitrogen at –80°C.	50 μCi (1.85 MBq)	NET1151050UC
Retinoic acid, [11,12- $^3$ H(N)]-, all trans 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol containing 1 mg/mL D- $\alpha$ -tocopherol under argon in a vial that protects cont Shipped in dry ice. Store at -80 °C.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) tents from UV light.	NET920100UC NET920250UC
Retinol, [11,12- $^3$ H(N)]-, all trans 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol containing 1 mg/mL D- $\alpha$ -tocopherol under argon in a vial that protects cont Shipped in dry ice. Store at -80 °C.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq) tents from UV light.	NET927100UC NET927250UC NET927001MC
Reverse T <sub>3</sub>		
See Triiodothyronine, L-3,3',5'.  RO 5-4864, [N-methyl-³H]- 70–90 Ci (2.59–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol.  Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET704250UC
RO 15-1788, [N-methyl-³H]- 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -80 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq) 2 mCi (74 MBq)	NET757025UC NET757250UC NET757001MC NEZ075002MC
RO 15-4513, [7,9-3H]- 20–40 Ci (0.74–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET925250UC

# Ro-Sc

Product	Size	Product No.
Rosiglitazone, D,L [³H] 40 - 75 Ci (14.8 - 22.8 TBq)/mmol Packaged in ethanol	100μCi (3.7MBq)	NET1143100UC
Shipped Dry Ice. Store at -20°C.		
RTI-121, [125]- 2200 Ci (81.4 TBq)/mmol Packaged in ethanol. Shipped ambient. Store at 2–8 °C. Fresh lot: Fourth Monday of even months.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NEX318025UC NEX318250UC
RTI-55, [125]- 2200 Ci (81.4 TBq)/mmol Packaged in ethanol:water:acetonitrile (1:1:0.1). Shipped ambient. Store at 2–8 °C. Fresh lot: Fourth Monday of even months.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NEX272025UC NEX272250UC
Rubidium-86 radionuclide >1 Ci (37 GBq)/g Packaged in water. Shipped ambient. Store ambient. Half life: 18.66 days Routinely Available	1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq)	NEZ072001MC NEZ072002MC NEZ072005MC NEZ072010MC
Ryanodine, [9,21-3H(N)]- 50–100 Ci (1.85–3.7 TBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET950025UC NET950250UC NET950001MC
S36057 (Tyr), [1251]- 2200 Ci (81.4 TBq)/mmol Packaged in 0.17 M acetic acid with 0.1 M N-acetylmethionine and 0.2% BSA:acetonitrile (9:1). Shipped in dry ice. Store at -20 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX396010UC NEX396025UC
SB258585, [125] 2200 Ci (81.4TBq)/mmol Packaged in ethanol Shipped Dry Ice. Store at -20°C or below. Fresh Lot: Third Monday of each month	10μCi (370kBq) 25μCi (925kBq)	NEX424010UC NEX424025UC
Salicylic acid, [7-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (2:8). Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC263050UC NEC263250UC
SAM (S-Adenosyl-L-methionine) See Adenosyl-L-methionine.		
Sauvagine (Tyr°), [¹²5]]- 2200 Ci (81.4 TBq)/mmol Packaged in acetonitrile:water (35:65).containing 2-mercaptoethanol, TFA and BSA. Shipped ambient. Store at 2–8 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX306010UC NEX306050UC
SCH 23390, [N-methyl-³H]- 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under argon in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET930025UC NET930250UC NET930001MC

Product	Size	Product No.
Scopolamine methyl chloride, [N-methyl-³H]- 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol in a silanized vial. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET636250UC NET636001MC
SDF-1 $\alpha$ , [1 <sup>25</sup> ]]-, (human, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged in sodium acetate (pH 4.2) containing sucrose and BSA. Shipped in dry ice. Store at -20 °C. Fresh lot: Third Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX346005UC NEX346025UC
Senktide, [phenylalanyl-3,4,5-3H]- 45–90 Ci (1.66–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in 0.2% TFA, acetonitrile with 1% 2-mercaptoethanol and a stabilizer in a silanized vial. Air sensitive Shipped in dry ice. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET997050UC NET997250UC
Serine, D-[³H(G)]- 15–40 Ci (0.555–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped on blue ice. Store at 2–8 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET1092025UC NET1092250UC
Serine, L-[14C(U)]- >150 mCi (5.55 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC286E050UC NEC286E250UC
Serine, L-[3- <sup>14</sup> C]- 50-62 mCi\ (1.85-2.30 GBq)/mmol 0.05 mCi (1.85 MBq)/ml Steri-packaged in ethanol: water (2:98). Shipped ambient. Store at 4°C	50 μCi (1.85 MBq)	NEC827050UC
Serine, L-[³H(G)]- 15–40 Ci (0.555–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET248250UC NET248001MC NET248005MC
Serotonin See Hydroxytryptamine creatinine sulfate.		
Serotonin binoxylate See Hydroxytryptamine binoxalate.		
SHU9119, [1 <sup>25</sup> I]- 2200 Ci (81.4 TBq)/mmol Packaged in water:acetonitrile:propanol (50:27:23) containing TFA and BSA. Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX362010UC NEX362050UC
Sodium acetate See Acetic acid, sodium salt.		

# So-Sp

Product	Size	Product No.
Sodium bicarbonate, [14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in 1.0 mL aqueous solution (pH 9.5) in a sealed glass ampoule. Not for human use. Shipped ambient. Store at 2–8 °C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NEC086H001MC NEC086H005MC
Sodium borohydride, [³H]- 5–15 Ci (185–555 GBq)/mmol Packaged as a crystalline solid under nitrogen in a silanized sealed ampoule. Shipped ambient. Store at -20 °C.	100 mCi (3.7 GBq)	NET023H100MC
Sodium cyanide, [¹⁴C]- 40–60 mCi (1.48–2.22 GBq)/mmol Packaged as a crystalline solid, <10% alkali, in a vial that protects contents from UV light. Shipped ambient. Store at -20 °C.	1 mCi (37 MBq)	NEC477B001MC
Sodium-22 radionuclide 100–2000 Ci (3.7–74 TBq)/g Packaged as NaCl in water. Shipped ambient. Store ambient. Half life: 2.6 years	100 μCi (3.7 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq) 2 mCi (74 MBq)	NEZ081100UC NEZ081500UC NEZ081001MC NEZ081002MC
Sodium tetrahydridoborate See Sodium borohydride.		
Somatomedin C See Insulin-like Growth Factor.		
Somatostatin 14 (Tyr <sup>11</sup> ), [ <sup>125</sup> ]- 2200 Ci (81.4 TBq)/mol Packaged lyophilized from 0.04 M sodium phosphate, 1 M glycine, 0.2 M sodium chloride, 0.25% BSA and 500 KIU/mL Trasylol® (pH 7.2). Shipped ambient. Store at 2–8 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX389010UC NEX389050UC
Somatostatin-14 (Tyr <sup>11</sup> ), [ <sup>125</sup> I]-, (human, recombinant) receptor grade 2200 Ci (81 TBq)/mmol Shipped in a solution containing HPLC solvent and sodium acetate (50 mM, pH 4.5), sodium chloride (150 mM), sucrose (5%), ascorbic acid (0.2%), N-acetylmethionine (0.2%), and BSA (0.25%) in TPX plastic. Shipped in dry ice. Store at –20°C or lower. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX446010UC NEX446050UC
Somatostatin-28 [125] —Leu8, D-Trp22, Tyr25 2200 Ci (81.4 TBq)/mmol Packaged in a solution containing HPLC solvent as well as sodium phosphate (50 mM, pH 7.4), sucrose (5%) Shipped in dry ice. Store at -20°C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq) ), and BSA (0.25%).	NEX447010UC NEX447050UC
Spermidine trihydrochloride, [terminal methylenes-³H(N)]- >15 Ci (555 GBq)/mmol 1 mCi (37 MBq)/mL Packaged under nitrogen in 0.01 N HCl. Shipped ambient. Store at 2–8 °C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET522001MC NET522005MC
Sphingomyelin [choline methyl-³H]-, (egg) 60–90 Ci (2.22–3.33 TBq)/mmol 0.1 mCi (37 MBq)/mL Packaged in toluene:methanol (1:1). Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET1134010UC NET1134050UC NET1134250UC

## Sp-Sr

10 μCi (370 kBq) 25 μCi (925 kBq)  100μCi (3.7MBq) 250μCi (9.25MBq) 500μCi (18.5MBq)  50 μCi (1.85 MBq)  25 μCi (9.25 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC663010UC NEC663025UC NEG381H100UC NEG381H250UC NEG381H500UC NET1072050UC NET565025UC NET565025UC NET565001MC
250μCi (9.25MBq) 500μCi (18.5MBq) 50 μCi (1.85 MBq) 25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG381H250UC NEG381H500UC NET1072050UC NET565025UC NET565250UC NET565001MC
25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET565025UC NET565250UC NET565001MC
250 µCi (9.25 MBq) 1 mCi (37 MBq)	NET565250UC NET565001MC
	NETOCOSELIC
25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET936250UC NET936250UC
250 μCi (9.25 MBq)	NET1158250UC
250 μCi (9.25 MBq)	NET1183250UC
25 μCi (925 kBq)	NET1077025UC NET1077250UC
230 μει (3.23 Μυφ)	NET946025UC
	25 μCi (925 kBq) 250 μCi (9.25 MBq) 25 μCi (925 kBq)

# St-Su

Product	Size	Product No.
Starch, [14C(U)]-, (Nicotiana tobacum L.)  1.5–2 mCi (55.5–74 MBq)/mg  0.1 mCi (3.7 MBq)/mL  Packaged in water:ethanol (97:3).  Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq)	NEC730050UC
Stearic acid, [1-14C]- 50–62 mCi (1850–2294 MBq)/mmol 0.2 mCi (7.4 MBq)/mL Packaged in toluene under nitrogen. Shipped ambient. Store at –20°C.	250 μCi (9.25 MBq)	NEC096H250UC
Streptavidin, [125]- 1800-4500 Ci/mmol (66-170 TBq/mmol) Supplied in acetate buffered saline at pH 5 containing 0.1% gelatin. Packaged in TPX plastic. Shipped in dry ice. Store at -20°C. Fresh lot: Second Monday of each month.	50 μCi (1.85 MBq) 100 μCi (3.70 MBq)	NEX238050UC NEX238100UC
Stromal Cell-derived Factor See SDF- $1\alpha$ .		
Strontium-85 radionuclide >3 Ci (111 GBq)/g Packaged in 0.5 M HCl. Shipped ambient. Store ambient. Half life: 64.84 days	500 μCi (18.5 MBq) 1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq)	NEZ082500UC NEZ082001MC NEZ082002MC NEZ082005MC NEZ082010MC
Strychnine, [benzene-ring-³H]- 15–40 Ci (0.555–1.48 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET773250UC
Substance K See Neurokinin A.		
Substance P (Lys³), [125]-, Bolton-Hunter labeled 2200 Ci (81.4 TBq)/mmol Packaged in TEAP (pH 3.5):acetonitrile (73:27) containing 2-mercaptoethanol. Shipped in dry ice. Store at -20 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX190010UC NEX190050UC
Substance P (Tyr*), [125]]- 2200 Ci (81.4 TBq)/mmol Packaged in 1-propanol:tris-HCl buffer (pH 8.5) containing sodium chloride, BSA and Trasylol®. Shipped ambient. Store at 2–8 °C. Fresh lot: Third Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX152010UC NEX152050UC
Substance P (9-Sar, 11-Met(O²)), [2-prolyl-3,4-³H]- 25–55 Ci (0.925–2.03 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol in a silanized vial. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET1025050UC NET1025250UC
Substance P, [leucyl-3,4,5-3H(N)]- >120 Ci (4.44 TBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in 0.1 N acetic acid:ethanol with 1% 2-mercaptoethanol and a stabilizer under argon in a sila Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) nnized vial.	NET1115250UC

#### Su-Ta

Product	Size	Product No.
Sucrose, [14C(U)]- 400–700 mCi (14.8–25.9 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (9:1).	50 μCi (1.85 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEC100X050U0 NEC100X250U0 NEC100X001M
Shipped ambient. Store at 2–8 °C.  Sulfur-35 radionuclide 250–1000 mCi (9.25–37 GBq)/mmol Packaged as sodium sulfate in 1 mL water. Shipped ambient. Store ambient. Half life: 87.4 days Fresh lot: Every 4 weeks.	1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq) 25 mCi (925 MBq)	NEX041001MC NEX041002MC NEX041005MC NEX041010MC NEX041025MC
Sulfur-35 radionuclide 1050–1600 Ci (38.8–59.2 TBq)/mmol Packaged as sodium sulfate in 1 mL water. Shipped ambient. Store ambient. Half life: 87.4 days Fresh lot: Every 4 weeks.	1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq) 25 mCi (925 MBq)	NEX041H001M0 NEX041H002M0 NEX041H005M0 NEX041H010M0 NEX041H025M0
Sulfur-35 radionuclide 1050–1600 Ci (38.8–59.2 TBq)/mmol Packaged as sulfuric acid in 1 mL water. Shipped ambient. Store ambient. Half life: 87.4 days Fresh lot: Every 4 weeks.	1 mCi (37 MBq) 2 mCi (74 MBq) 5 mCi (185 MBq) 10 mCi (370 MBq) 25 mCi (925 MBq)	NEX042001MC NEX042002MC NEX042005MC NEX042010MC NEX042025MC
(-)Sulpiride, [methoxy-³H]- 60–87 Ci (2.22–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET775250UC
T <sub>3</sub> See Triiodothyronine, L-3,5',3'.		
T <sub>4</sub> See Thyroxine.  TARC, [125]-, (human, recombinant) 2200 Ci (81.4 TBq)/mmol Packaged in sodium acetate buffer (pH 4.2) containing sucrose and BSA. Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX369010UC NEX369025UC
Taurine, [1,2-³H(N)]- 5–30 Ci (0.185–1.11 TBq)/mmol 1.0 mCi (37 MBq)/mL Steri-packaged in ethanol:water (2:98). Shipped in blue ice.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1173250UC NET1173001MC
Taurocholic acid, [³H(G)]- 1–5 Ci (37–185 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in methanol:ethanol (1:3). Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET322250UC NET322001MC

## Tb-Th

Product	Size	Product No.
TBOB- [³H]- 20–60 Ci (0.74–2.22 TGq)/mmol 1.0 mCi (37 MBq)/mL Packaged in toluene:TEA (99:1) Shipped in dry ice. Store at –20°C.	250 μCi (9.25 MBq)	NET1180250UC
TBPS See Butyl bicyclophosphorothionate.		
TCP, N-(1-(2 thienyl)cyclohexyl)-3,4-piperidine, [piperidyl-3,4-³H(N)]-40–60 Ci (1.48–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET886025UC NET886250UC NET886001MC
Testosterone, [1,2,6,7,16,17-3H(N)]- 100–180 Ci (3.7–6.66 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET553250UC NET553001MC
Testosterone, [1,2,6,7-3H(N)]- 85–105 Ci (3.15–3.89 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET370250UC NET370001MC
Testosterone, [4-14C]- 45–60 mCi (1.66–2.22 GBq)/mmol 0.04 mCi (1.48 MBq)/mL Packaged in ethanol. Shipped ambient. Store at 2–8 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC101010UC NEC101050UC NEC101250UC
Tetracycline, [7-3H(N)]- 0.2–2.0 Ci (7.4–74 GBq)/mmol 1 mCi (37 MBq)/mL Packaged as a crystalline solid in a vial that protects contents from UV light. Shipped in dry ice. Store at -20 °C	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET141250UC NET141001MC NET141005MC
Tetradecanoic acid See Myristic acid.		
Tetraethylammonium bromide, [1-14C]- 1–5 mCi (37–185 MBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in ethanol in a silanized vial. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC298050UC NEC298250UC
Tetralone, 2-[β-(4-Hydroxy-3-iodophenyl-ethylamino methyl)] See HEAT.		
TGF See Transforming Growth Factor. Thioadenosine triphosphate See Adenosine 5'-( $\alpha$ -thio) triphosphate.		
Thioguanosine triphosphate See Guanosine 5'- $\alpha$ -thio) triphosphate.		

# Th-Th

Product	Size	Product No.
Thymidine, [2-14C]- >50 mCi (1.85 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC156010UC NEC156050UC NEC156250UC
Thymidine, [methyl-14C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC568050UC NEC568250UC
Thymidine, [methyl-14C]- 50–62 mCi (1.85–2.29 GBq)/mmol 0.05 mCi (1.85 MBq)/mL Steri-packaged in an aqueous solution. Shipped ambient. Store at 5°C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC568D050UC NEC568D250UC
Thymidine, [6-3H]- >10 Ci (370 GBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET355250UC NET355001MC NET355005MC
Thymidine, [6-3H]- 5-6 Ci (185–222GBq)/mmol 1.0 mCi (37 MBq)/mL Steri-packaged in aqueous solution. Shipped ambient.	5 mCi (185 MBq)	NET355L005MC
Thymidine, [methyl-³H]- 2 Ci (74 GBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET027A250UC NET027A001MC NET027A005MC
Thymidine, [methyl-³H]- 6.7 Ci (248 GBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET027250UC NET027001MC NET027005MC
Thymidine, [methyl-³H]- 20 Ci (740 GBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (7:3). Shipped ambient. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET027E250UC NET027E001MC NET027E005MC
Thymidine, [methyl-³H]- 20 Ci (740 GBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET027X250UC NET027X001MC NET027X005MC
Thymidine, [methyl-³H]- 23–27 Ci (851–999 MBq)/mmol 1.0 mCi (37 MBq)/mL Steri-packaged in water:ethanol (9:1). Shipped ambient. Store at 5°C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET027L001MC NET027L005MC

# Th-Tr

Product	Size	Product No.
Thymidine, [methyl-³H]- 40–60 Ci (1.48–2.22 GBq)/mmol 1.0 mCi (37 MBq)/mL Steri-packaged in ethanol:water (2:98). Shipped ambient. Store at 5°C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET027W001MC NET027W005MC
Thymidine, [methyl-³H]- 70–90 Ci (2.59–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET027Z250UC NET027Z001MC NET027Z005MC
Thyrotropin Releasing Hormone (3-methyl-histidine²), [L-histidyl-4-³H(N), L-propyl-3,4-³H(N)]-, ([³H]-TRH) 50–90 Ci (1.85–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol in a silanized vial. Shipped in dry ice. Store at 2–8 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET705050UC NET705250UC
Thyrotropin Releasing Hormone (His²), [125]-, ([125]-TRH) 2200 Ci (81.4 TBq)/mmol Packaged in 1-propanol:water (1:1). Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of even months.	10 μCi (370 kBq)	NEX153010UC
Thyroxine, L-, [125]-, ([125]-T <sub>4</sub> ) 135–165 µCi (5–6.11 MBq)/µg Packaged in 1-propanol:water (1:1) in a vial that protects contents from UV light. Shipped ambient. Store at 2–8 °C. Fresh lot: Third Monday of each month.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq)	NEX111100UC NEX111250UC NEX111500UC
Thyroxine, L-, $[^{125}]$ -, $([^{125}]$ - $T_4)$ 1080—1320 µCi (40.0—48.8 MBq)/µg Packaged, shipped and stored same as NEX111. Fresh lot: Third Monday of each month.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq)	NEX111H100UC NEX111H250UC NEX111H500UC
Thyroxine, L-, [1 <sup>25</sup> ]-, ([1 <sup>25</sup> ]-T <sub>4</sub> ) 5700 μCi (210 MBq)/μg Packaged, shipped and stored same as NEX111. Fresh lot: Third Monday of each month.	100 μCi (3.7 MBq) 500 μCi (18.5 MBq)	NEX111X100UC NEX111X500UC
Tiotidine, [methyl- <sup>3</sup> H]-, (ICI 125,211) 70–90 Ci (2.59–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a silanized vial. Shipped in dry ice. Store at -80 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET688025UC NET688250UC
Transferrin, [125]-, diferric, (human) 0.3–1 μCi (11.1–37 kBq)/μg Packaged in phosphate-buffered-saline containing BSA. Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX212010UC NEX212050UC
Transforming Growth Factor, β1, [125]-, ([125]]-TGFβ,1), (human, recombinant) 3000–4500 Ci (111–166 TBq)/mmol Packaged in sodium acetate (pH 4.0) containing sucrose, BSA and a stabilizer in a Sigma Cote™ treated vial. Shipped in dry ice. Store at -80 °C.	5 μCi (185 kBq) 10 μCi (370 kBq) 25 μCi (925 kBq)	NEX267005UC NEX267010UC NEX267025UC

# Tr-Tu

Product	Size	Product No.
Triiodothyronine, L-3,3',5'-[ $^{125}$ I]-, ([ $^{125}$ I]-Reverse T $_3$ ) 750–1250 $\mu$ Ci (27.8–46.3 MBq)/ $\mu$ g Packaged in 1-propanol:water (1:1) in a vial that protects contents from UV light. Shipped ambient. Store at 2–8 °C. Fresh lot: Fourth Monday of each month.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq)	NEX109250UC NEX109500UC
Triiodothyronine, L-3,5,3'-[ $^{125}$ ]-, ([ $^{125}$ ]-T <sub>3</sub> ) 135–165 $\mu$ Ci (5–6.11 MBq/ $\mu$ g) Packaged in 1-propanol:water (1:1) in a vial that protects contents from UV light. Shipped ambient. Store at 2–8 °C. Fresh lot: Third Monday of each month.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18. 5 MBq)	NEX110100UC NEX110250UC NEX110500UC
Triiodothyronine, L-3,5,3'-[ $^{125}$ I]-, ([ $^{125}$ I]-T $_3$ ) 1080–1320 $\mu$ Ci (40–48.8 MBq)/ $\mu$ g Packaged in 1-propanol:water (1:1) in a vial that protects contents from UV light. Shipped ambient. Store at 2–8 °C. Fresh lot: Third Monday of each month.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq)	NEX110H100UC NEX110H250UC NEX110H500UC
Triiodothyronine, L-3,5,3'-[ $^{125}$ I]-, ([ $^{125}$ I]-T $_3$ ) 3300 µCi (122 MBq)/µg Packaged in 1-propanol:water (1:1) in a vial that protects contents from UV light. Shipped ambient. Store at 2–8 °C. Fresh lot: Third Monday of each month.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 500 μCi (18.5 MBq)	NEX110X100UC NEX110X250UC NEX110X500UC
Triolein, [carboxyl-14C]- 80–120 mCi (2.96–4.44 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in toluene:ethanol (1:1) under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC674050UC NEC674250UC
Triolein, [carboxyl-14C]- 50–80 mCi (1.85–2.96 GBq)/mmol 0.1 mCi (3.7 MBq)/mL Packaged in toluene in a glass ampoule, under nitrogen. Shipped in dry ice. Store at –20°C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NEC674L050UC NEC674L250UC
Triolein, [9,10-3H(N)]- 30–120 Ci (1.11–4.44 TBq)/mmol 0.5 mCi (18.5 MBq)/mL Packaged in toluene:ethanol (1:1) under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET431001MC NET431005MC
Triolein, [9,10-3H(N)]- 10–30 Ci (0.37–1.11 TBq)/mmol 5.0 mCi (185 MBq)/mL Packaged in toluene Shipped in dry ice. Store at –20°C.	5 mCi (185 MBq)	NET431L005MC
Tryptophan, L-[side chain-3- <sup>14</sup> C]- 40–60 mCi (1.48–2.22 GBq)/mmol 0.02 mCi (0.74 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped on blue ice. Store at 2–8 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC367010UC NEC367050UC
Tumor Necrosis Factor-α, [125]-, ([125]-rTNFα), (human, recombinant) >30 μCi (1.11 MBq)/μg Packaged in a tris-HCl buffer (pH 7.5) containing BSA and a stabilizer in a Sigma Cote <sup>™</sup> treated vial. Shipped in dry ice. Store at -80 °C. Fresh lot: Fourth Monday of each month.	5 μCi (185 kBq) 10 μCi (370 kBq) 25 μCi (925 kBq)	NEX257005UC NEX257010UC NEX257025UC

# Ty-Ur

Product	Size	Product No.
Tyrosine L-[14C(U)]- >450 mCi (16.7 GBq)/mmol 0.05 mCi (1.85 MBq)/mL Steri-packaged in ethanol:water (2:98). Shipped ambient.	50 μCi (1.85 MBq)	NEC289E050UC
Tyrosine, L-[ring-3,5-3H]- 40–60 Ci (1.48–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in ethanol:water (2:98). Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET127250UC NET127001MC NET127005MC
U-69,593, [phenyl-3,4-³H]- 30–60 Ci (1.11–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET952025UC NET952250UC
Ubiquitin, [125]]- 2200 Ci/ (81.4 TBq)/mmol Packaged in a solution containing 0.36% BSA in water:ethanol (70:30) with 0.4% acetic acid. Shipped in dry ice. Store at -20 °C. Fresh upon request.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX404010UC NEX404025UC
UK-14,304, [imidazolyl-4,5-³H]- 25–100 Ci (0.925–3.7 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen. Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq)	NET853250UC
Uracil, [5,6-³H]- 30–50 Ci (1.11–1.85 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET368250UC NET368001MC NET368005MC
Urea, [14C]- 50-62 mCi/mmol (1.85-2.30 GBq/mmol Crystalline solid under nitrogen Shipped ambient. Store at -20°C	250 μCi (9.25 MBq)	NEC108V250UC
Uridine, [5-3H]- >20 Ci (740 GBq)/mmol  1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET174250UC NET174001MC NET174005MC
Uridine, [5,6-3H]- 35–50 Ci (1.29–1.85 TBq)/mmol 1 mCi (37 MBq)/mL Steri-packaged in an aqueous solution. Not for human use. Shipped ambient. Store at 2–8 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET367250UC NET367001MC NET367005MC
Uridine diphosphate N-acetyl-D-glucosamine, [glucosamine-6-³H(N)]- 20–45 Ci (0.74–1.66 TBq/mmol) 0.1 mCi (3.7 MBq)/mL Packaged in ethanol:water (7:3). Shipped in dry ice. Store at -20 °C.	50 μCi (1.85 MBq) 250 μCi (9.25 MBq)	NET434050UC NET434250UC

# Ur-Ur

Product	Size	Product No.
Uridine diphosphate N-acetyl-D-glucosamine, [glucosamine-14C(U)]->200 mCi (7.4 GBq)/mmol 0.01 mCi (0.37 MBq)/mL Packaged in ethanol:water (7:3). Shipped in dry ice. Store at -20 °C.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEC664005UC NEC664025UC
Uridine diphosphate galactose, [galactose-14C(U)]- 250–360 mCi (9.25–13.3 GBq)/mmol 0.02 mCi (0.74 MBq)/mL Packaged in ethanol:water (7:3). Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC429010UC NEC429050UC
Uridine diphosphate glucose, [glucose- <sup>14</sup> C(U)]- >200 mCi (7.4 GBq)/mmol 0.02 mCi (0.74 MBq)/mL Packaged in ethanol:water (7:3). Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC403010UC NEC403050UC
Uridine diphosphate D-glucose, [glucose-14C(U)]->200 mCi (7.4 GBq)/mmol 0.025 mCi (925 kBq)/mL Steri-packaged in ethanol:water (2:98) under nitrogen. Shipped in dry ice.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC403V010UC NEC403V050UC
Uridine diphosphate glucuronic acid, [glucuronyl-14C(U)]->180 mCi (6.66 GBq)/mmol 0.02 mCi (0.74 MBq)/mL Packaged in ethanol:water (7:3). Shipped in dry ice. Store at -20 °C.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEC414010UC NEC414050UC
Uridine diphosphate xylose, [xylose-14C(U)]- 200–300 mCi (7.4–11.1 GBq)/mmol 0.01 mCi (0.37 MBq)/mL Packaged in ethanol:water (7:3). Shipped in dry ice. Store at -20 °C.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEC543005UC NEC543025UC
Uridine 5'-(α-thio) triphosphate, [35S]- 800 Ci (29.6 TBq)/mmol 40 mCi (1480 MBq)/mL Packaged as a stabilized aqueous solution. Shipped in dry ice. Store at -20 °C or below. Fresh lot: First Tuesday of each month.	1 mCi (37 MBq)	NEG039C001MC
Uridine 5'-(\alpha-thio) triphosphate, [35S]-, (EasyTides) 1250 Ci (46.2 TBq)/mmol 12.5 mCi (462.5 MBq)/mL Packaged as a stabilized aqueous solution with a blue dye. Shipped ambient. Store at 2–8 °C or below. Fresh lot: First Tuesday of each month.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG739H250UC NEG739H001MC
Uridine 5'-(\alpha-thio) triphosphate, [35S]- 1250 Ci (46.2 TBq)/mmol 12.5 mCi (462.5 MBq)/mL Packaged as a stabilized aqueous solution. Shipped in dry ice. Store at -20 °C or below. Fresh lot: First Tuesday of each month.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG039H250UC NEG039H001MC

# Ur-Ur

Product	Size	Product No.
Uridine 5'-triphosphate, tetrasodium salt, [5,6-³H]- 35–50 Ci (1.29–1.85 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:water (1:1). Shipped in dry ice. Store at -20 °C.	250 μCi (9.25 MBq) 1 mCi (37 MBq) 5 mCi (185 MBq)	NET380250UC NET380001MC NET380005MC
Uridine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU507X250UC BLU507X500UC BLU507X001MC
Uridine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG507X250UC NEG507X500UC NEG507X001MC
Uridine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU007X250UC BLU007X500UC BLU007X001MC
Uridine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-800 Ci (29.6 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG007X250UC NEG007X500UC NEG007X001MC
Uridine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-, (EasyTides) 800 Ci (29.6 TBq)/mmol 20 mCi (740 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU507T250UC BLU507T500UC BLU507T001MC
Uridine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-, (EasyTides) 800 Ci (29.6 TBq)/mmol 20 mCi (740 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG507T250UC NEG507T500UC NEG507T001MC
Uridine 5'-triphosphate, [ $\alpha$ - $^{32}$ P]-, (EasyTides) 800 Ci (29.6 TBq)/mmol 40 mCi (1480 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	1 mCi (37 MBq)	NEG507C001MC

# Ur-Ur

Product	Size	Product No.
Uridine 5'-triphosphate, $[\alpha^{-32}P]$ -800 Ci (29.6 TBq)/mmol 40 mCi (1480 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	1 mCi (37 MBq)	NEG007C001MC
Uridine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU507H250UC BLU507H500UC BLU507H001MC
Uridine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG507H250UC NEG507H500UC NEG507H001MC
Uridine 5'-triphosphate, $[\alpha^{-32}P]$ - 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	BLU007H250UC BLU007H500UC BLU007H001MC
Uridine 5'-triphosphate, [\alpha-32P]- 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	250 μCi (9.25 MBq) 500 μCi (18.5 MBq) 1 mCi (37 MBq)	NEG007H250UC NEG007H500UC NEG007H001MC
Uridine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 6000 Ci (222 TBq)/mmol 40 mCi (1480 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Lead-free packaging. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	1 mCi (37 MBq)	BLU507Z001MC
Uridine 5'-triphosphate, $[\alpha^{-32}P]$ -, (EasyTides) 6000 Ci (222 TBq)/mmol 40 mCi (1480 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with green dye. Shipped in lead. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Thursday.	1 mCi (37 MBq)	NEG507Z001MC
Uridine 5'-triphosphate, $[\alpha^{-32}P]$ - 6000 Ci (222 TBq)/mmol 40 mCi (1480 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Lead-free packaging. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	1 mCi (37 MBq)	BLU007Z001MC

# Ur-Va

Product	Size	Product No.
Uridine 5'-triphosphate, $[\alpha^{-32}P]$ - 6000 Ci (222 TBq)/mmol 40 mCi (1480 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6). Shipped in lead. Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Thursday.	1 mCi (37 MBq)	NEG007Z001MC
Uridine 5'-triphosphate, $[\alpha^{-33}P]$ -, (EasyTides) 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 50 mM tricine buffer (pH 7.6) with amber gold dye. Shipped ambient. Store at 2–8 °C or below. Fresh lot: Every Other Friday.	100 μCi (3.7 MBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG607H100UC NEG607H250UC NEG607H001MC
Uridine 5'-triphosphate, [ $\alpha$ - $^{33}$ P]- 3000 Ci (111 TBq)/mmol 10 mCi (370 MBq)/mL Packaged in 10 mM tricine buffer (pH 7.6). Shipped in dry ice. Store at -20 °C or below. Fresh lot: Every Other Friday.	250 μCi (9.25 MBq) 1 mCi (37 MBq)	NEG307H250UC NEG307H001MC
Urotensin II (Tyr <sup>9</sup> ), [ <sup>125</sup> I]-, (human) 2200 Ci (81.4 TBq)/mmol Packaged in 1-propanol:0.1% TFA:acetonitrile (23:50:27) with 0.4% BSA. Shipped in dry ice. Store at -20 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX379010UC NEX379025UC
Valium® See Diazepam.		
Vascular Endothelial Growth Factor, [125]-, ([125]-VEGF), (human, recombinant) 80–140 µCi (2.96–5.18 MBq)/µg Packaged lyophilized from phosphate-buffered saline containing glycine and BSA. Shipped in dry ice. Store at -20 °C. Fresh lot: First Monday of each month.	5 μCi (185 kBq) 25 μCi (925 kBq)	NEX328005UC NEX328025UC
Vasoactive Intestinal Polypeptide, [1251]-, ([1251]-VIP), (human, porcine, rat) 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline containing glycine, BSA and Trasylol®. Shipped ambient. Store at 2–8 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX192010UC NEX192050UC
Vasopressin (linear) V <sub>1A</sub> antagonist (phenylacetyl <sup>1</sup> , 0-Me-D-Tyr <sup>2</sup> , Arg <sup>6,8</sup> , Tyr <sup>9</sup> ), [ <sup>125</sup> I]- 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline (pH 4.2) containing glycine, BSA and Trasylol <sup>®</sup> . Shipped ambient. Store at 2–8 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX310010UC NEX310050UC
Vasopressin (Tyr², Arg <sup>8</sup> ), [ <sup>125</sup> l]- 2200 Ci (81.4 TBq)/mmol Packaged lyophilized from phosphate-buffered saline (pH 4.2) containing glycine, BSA and Trasylol <sup>®</sup> . Shipped in dry ice. Store at -20 °C. Fresh lot: Second Monday of each month.	10 μCi (370 kBq) 50 μCi (1.85 MBq)	NEX128010UC NEX128050UC
Vasopressin (Arg <sup>8</sup> ), [phenylalanyl-3,4,5- <sup>3</sup> H(N)]- 35–85 Ci (1.29–3.15 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:0.05 N acetic acid (7:3) under argon in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET800025UC NET800250UC

# Va-Wk

Product	Size	Product No.
Vasopressin (Arg <sup>8</sup> ), [tyrosyl-3,5- <sup>3</sup> H]- 15–50 Ci (0.555–1.85 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol:0.05 N acetic acid (7:3) in a silanized vial under argon in a vial that protects control of the control o	25 μCi (925 kBq) 250 μCi (9.25 MBq) ents from UV light.	NET800A025UC NET800A250UC
Shipped in dry ice. Store at -20 °C.  VEGF		
See Vascular Endothelial Growth Factor.  Verapamil hydrochloride, [N-methyl-³H]- 60–85 Ci (2.22–3.145 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol.  Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq)	NET810025UC NET810250UC
Vesamicol, L-[Piperidinyl-3,4-³H]-(AH5183, L-[Piperidinyl-3,4-³H]- ) 25-60 Ci/mmol (0.925-2.22 TBq/mmol) Ethanolic solution at 1 mCi (37 MBq)/mL (37 MBq/ml) stored under argon Shipped in blue ice. Store at -20°C.	250μCi (9.25MBq)	NET964250UC
VIP See Vasoactive Intestinal Polypeptide.		
Vitamin A See Retinoic acid.		
Vitamin A alcohol See Retinol.		
Vitamin H See Biotin.		
Water, [³H]- 1 mCi (37 MBq)/g Packaged in a NENSure vial. Shipped ambient. Store ambient.	1 mCi (37 MBq) 5 mCi (185 MBq)	NET001B001MC NET001B005MC
WAY100635, [methoxy-³H] 60-86 Ci (2.22-3.18 TBq)/mmol 0.2 mCi (7.4 MBq)/mL Ethanol Solution Shipped in dry ice. Store at –20°C.	250 μCi (9.25 MBq)	NET1164250UC
WIN 35428, [N-methyl-³H]- 60–87 Ci (2.22–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1033025UC NET1033250UC NET1033001MC
WIN 55212-2, [5,7-naphthyl-³H]- 40–60 Ci (1.48–2.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a silanized vial. Shipped in dry ice. Store at -20 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1058025UC NET1058250UC NET1058001MC
WKYMVm, [125]-, Bolton-Hunter labeled 2200 Ci (81.4 TBq)/mmol Packaged in 0.08 M tris-HCl (pH 8.6), 0.08 M NaCl, 50 KIU/mL aprotinin:1-propanol (1:1) with 0.17% 2-mercaptoethanol. Shipped in dry ice. Store at -20 °C. Fresh lot: Fourth Monday of each month.	10 μCi (370 kBq) 25 μCi (925 kBq)	NEX386010UC NEX386025UC

# Ym-Yt

Product	Size	Product No.
YM-09151-2, [N-methyl-³H]- 70–87 Ci (2.59–3.22 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol under nitrogen in a vial that protects contents from UV light.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq)	NET1004025UC NET1004250UC NET1004001MC
Shipped in dry ice. Store at -20 °C.		
Yohimbine, [methyl-3H]- 70–90 Ci (2.59–3.33 TBq)/mmol 1 mCi (37 MBq)/mL Packaged in ethanol containing 0.25% ascorbic acid under nitrogen in a vial that protects contents from UV lig Shipped in dry ice. Store at -80 °C.	25 μCi (925 kBq) 250 μCi (9.25 MBq) 1 mCi (37 MBq) ght.	NET659025UC NET659250UC NET659001MC
Yttrium-90 radionuclide ~500 Ci (18.5 TBq)/mg Packaged as yttrium chloride in 0.05 M HCl. Shipped ambient. Store ambient. Half life: 2.67 days Fresh lot: Every week; Monday calibration day.	Custom filled	NEZ306000MC
Yttrium-90 radionuclide ~500 Ci (18.5 TBq)/mg Packaged as yttrium chloride in 0.05 M HCl. Shipped ambient. Store ambient. Half life: 2.67 days Fresh lot: Every week; Tuesday calibration day.	Custom filled	NEZ306A000MC
Yttrium-90 radionuclide ~500 Ci (18.5 TBq)/mg Packaged as yttrium chloride in 0.05 M HCl. Shipped ambient. Store ambient. Half life: 2.67 days Fresh lot: Every week; Wednesday calibration day.	Custom filled	NEZ306B000MC
Yttrium-90 radionuclide ~500 Ci (18.5 TBq)/mg Packaged as yttrium chloride in 0.05 M HCl. Shipped ambient. Store ambient. Half life: 2.67 days Fresh lot: Every week; Thursday calibration day.	Custom filled	NEZ306C000MC
Yttrium-90 radionuclide, sterile and non-pyrogenic ~500 Ci (18.5 TBq)/mg Packaged as sterile yttrium chloride in 0.05 M HCl. Shipped ambient. Store ambient. Half life: 2.67 days Fresh lot: Every week; Monday calibration day.	Custom filled	NEZ306S000MC
Yttrium-90 radionuclide, sterile and non-pyrogenic ~500 Ci (18.5 TBq)/mg Packaged as sterile yttrium chloride in 0.05 M HCl. Shipped ambient. Store ambient. Half life: 2.67 days Fresh lot: Every week; Tuesday calibration day.	Custom filled	NEZ306AS000MC
Yttrium-90 radionuclide, sterile and non-pyrogenic ~500 Ci (18.5 TBq)/mg Packaged as sterile yttrium chloride in 0.05 M HCl. Shipped ambient. Store ambient. Half life: 2.67 days Fresh lot: Every week; Wednesday calibration day.	Custom filled	NEZ306BS000MC

# Yt-Zi

Product	Size	Product No.
Yttrium-90 radionuclide, sterile and non-pyrogenic	Custom filled	NEZ306CS000MC
~500 Ci (18.5 TBq)/mg		
Packaged as sterile yttrium chloride in 0.05 M HCl.		
Shipped ambient. Store ambient.		
Half life: 2.67 days		
Fresh lot: Every week; Thursday calibration day.		
Zinc-65 Radionuclide	500 μCi (18.5 MBq)	NEZ111500UC
Carrier free	1 mCi (37 MBq)	NEZ111001MC
Shipped ambient. Store ambient	2 mCi (74 MBq)	NEZ111002MC
Half life: 244 days	5 mCi (185 MBq)	NEZ111005MC
	10 mCi (370 MBq)	NEZ111010MC

# Films, Screens & Accessories

Product/Size	Quantity/Packaging	Product No.
BioMax® MR-1 Autoradiography Film, 13 x 18 cm (5 x 7 in.)	50 sheets, non-interleaved packaging	8941114001EA
BioMax® MR-1 Autoradiography Film, 18 x 24 cm (7 x 9.5 in.)	50 sheets, non-interleaved packaging	8736936001EA
BioMax® MR-1 Autoradiography Film, 20.3 x 25.4 cm (8 x 10 in.)	50 sheets, non-interleaved packaging	8701302001EA
BioMax® MR-1 Autoradiography Film, 24 x 30 cm (9.5 x 11.8 in.)	50 sheets, non-interleaved packaging	8912560001EA
BioMax® MR-1 Autoradiography Film, 35 x 43 cm (14 x 17 in.)	50 sheets, non-interleaved packaging	8715187001EA
BioMax® MR-2 Autoradiography Film, 20.3 x 25.4 cm (8 x 10 in.)	50-sheet ReadyPack; each sheet individually wrapped	8952855001EA
BioMax® MR-2 Autoradiography Film, 35 x 43 cm (14 x 17 in.)	50-sheet ReadyPack; each sheet individually wrapped	8567232001EA
BioMax® MS-1 Autoradiography Film, 13 x 18 cm (5 x 7 in.)	50 sheets, non-interleaved packaging	1111681001EA
BioMax® MS-1 Autoradiography Film, 18 x 24 cm (7 x 9.5 in.)	50 sheets, non-interleaved packaging	8222648001EA
BioMax® MS-1 Autoradiography Film, 20.3 x 25.4 cm (8 x 10 in.)	50 sheets, non-interleaved packaging	8294985001EA
BioMax® MS-1 Autoradiography Film, 24 x 30 cm (9.5 x 11.8 in.)	50 sheets, non-interleaved packaging	8326886001EA
BioMax® MS-1 Autoradiography Film, 30 x 40 cm (11.8 x 15.8 in.)	50 sheets, non-interleaved packaging	8220774001EA
BioMax® MS-1 Autoradiography Film, 35 x 43 cm (14 x 17 in.)	50 sheets, non-interleaved packaging	1435726001EA
BioMax® MS-2 Autoradiography Film, 35 x 43 cm (14 x 17 in.)	50-sheet ReadyPack; each sheet individually wrapped	1764505001EA
BioMax® Light-1 Autoradiography Film, 13 x 18 cm (5 x 7 in.)	50 sheets, non-interleaved packaging	8689358001EA
BioMax® Light-1 Autoradiography Film, 18 x 24 cm (7 x 9.5 in.)	50 sheets, non-interleaved packaging	8194540001EA
BioMax® Light-1 Autoradiography Film, 20.3 x 25.4 cm (8 x 10 in.)	50 sheets, non-interleaved packaging	1788207001EA
BioMax® Light-2 Autoradiography Film, 20.3 x 25.4 cm (8 x 10 in.)	50-sheet ReadyPack; each sheet individually wrapped	8761520001EA
BioMax® XAR Film, 13 x 18 cm (5 x 7 in.)	50 sheets, non-interleaved packaging	1651496001EA
BioMax® XAR Film, 18 x 24 cm (7 x 9.5 in.)	50 sheets, non-interleaved packaging	8532665001EA
BioMax® XAR Film, 20.3 x 25.4 cm (8 x 10 in.)	50 sheets, non-interleaved packaging	1651454001EA
BioMax® XAR Film, 24 x 30 cm (9.5 x 11.8 in.)	50 sheets, non-interleaved packaging	1501451001EA
BioMax® XAR Film, 35 x 43 cm (14 x 17 in.)	50 sheets, non-interleaved packaging	1651512001EA
BioMax® XAR Film Ready Pack, 20.3 x 25.4 cm (8 x 10 in.)	50-sheet ReadyPack; each sheet individually wrapped	1651579001EA
X-OMAT Blue (XB) Film, 13 x 18 cm (5 x 7 in.)	100 sheets, non-interleaved packaging	NEF586001EA
X-OMAT Blue (XB) Film, 18 x 24 cm (7 x 9.5 in.)	100 sheets, non-interleaved packaging	NEF585001EA
X-OMAT Blue (XB) Film, 20.3 x 25.4 cm (8 x 10 in.)	100 sheets, non-interleaved packaging	NEF596001EA
X-OMAT Blue (XB) Film, 35 x 43 cm (14 x 17 in.)	100 sheets, non-interleaved packaging	NEF595001EA
BioMax® TranScreen HE, 20.3 x 25.4 cm (8 x 10 in.)	One screen	8563959001EA
BioMax® TranScreen LE, 20.3 x 25.4 cm (8 x 10 in.)	One screen	1622034001EA
BioMax® TranScreen LE, with cassette, 20.3 x 25.4 cm (8 x 10 in.)	One screen plus one cassette	1030667001EA
BioMax® MS Intensifying Screen, 18 x 24 cm (7 x 9.5 in.)	One screen	8757270001EA
BioMax® MS Intensifying Screen, 20.3 x 25.4 cm (8 x 10 in.)	One screen	8518706001EA
BioMax® MS Intensifying Screen, 35 x 43 cm (14 x 17 in.)	One screen	8981706001EA
BioMax® Cassette, with one BioMax® MS Screen, 20.3 x 25.4 cm (8 x 10 in.)	One cassette plus one screen	8750499001EA
BioMax® Cassette, with one BioMax® TranScreen HE, 20.3 x 25.4 cm (8 x 10 in.)	One cassette plus one screen	8356800001EA
BioMax® Cassette, with one BioMax® TranScreen LE, 20.3 x 25.4 cm (8 x 10 in.)	One cassette plus one screen	1030667001EA
BioMax® Cassette, without screen, 20.3 x 25.4 cm (8 x 10 in.)	One cassette	8209140001EA
BioMax® Cassette, without screen, 35 x 43 cm (14 x 17 in.)	One cassette	8197600001EA
Film Processing Hanger, 13 x 18 cm (5 x 7 in.)	One hanger	1502723001EA
Film Processing Hanger, 20.3 x 25.4 cm (8 x 10 in.)	One hanger	1502764001EA



# Better microplates mean better results!

# **Radiometric Detection**

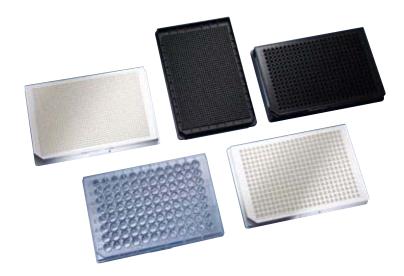
High quality microplates manufactured by the instrument and assay expert will give you better results, time after time. You'll find the type, size and color you need for any assay application, detection technology and any plate reader. Don't waste time with general labware plates, choose plates developed and tested with your application in mind. Never forget – better plates, give better performance and better results.

Application	Assay Type	Recommended Microplates
Flitration Assays	Receptor Binding, Cell Harvesting, <sup>3</sup> H Thymiding, DNA Binding/Hybrid	UniFilter®, OmniFilter™ Plate
Isotopic Assays	Solid-Phase Radiobinding SPA (Scintillation Proximity Assay) Solid Scintillation (HPLC fraction, <sup>5</sup> 1Cr Release) Liquid Scintillation Couting	FlashPlate®, Scintiplate® OptiPlate™, ProxiPlate™, IsoPlate, VisiPlate™ LumaPlate™ OptiPlate™, IsoPlate, VisiPlate™, Flexible Plate, PicoPlate™, PloyPlate™
Cell-based Assays	Real-time analysis of cell adhesion, Cell Signaling, Cell Motility, Cell Proliferation, Cellular Metbolism, Drug Metabolism (intake and efflux).	CytoStar - T <sup>®</sup> Scinitillating Microplate

Looking for microplate detail visit www.perkinelmer.com/Microplates.

Sterile, tissue culture treated scintillating microplates for real-time, non-invasive call based assays using the SPA platform technology in Microbeta<sup>2</sup> or Top Count.

Product	Pcs	Product No.
CytoStar-T-96well	5	RPNQO162
CytoStar-T-96well	100	RPNQO163
CytoStar-T-384well	5	RPNQO165
CytoStar-T-384well	50	RPNQO166



# Scope of Radiosynthes labeling Services

Over fifty years of experience in labeling technologies allows us to label virtually any biomolecule. Our expertise in assay development and custom synthesis help streamline your projects and save valuable time. Rely on PerkinElmer to have what you need, when you need it.

	ISO 9001:2008	Technical Data Sheets	-	Specific Activity R Measurement	Purity	I Chiral Separation or Synthesis	-
<sup>14</sup> C, <sup>3</sup> H, <sup>35</sup> S Custom Synthesis	•		•		•	•	•
<sup>14</sup> C, <sup>3</sup> H, <sup>35</sup> S Radioactive	•	•	•		•	•	
<sup>125</sup> I or <sup>131</sup> I Radioiodination			•			•	
Tritium Labeling Plus	•		•			•	
<b>Tritium Labeling Services</b> Catalytic Reduction with Tritium Gas							
Reduction with Sodium Borohydride, [ <sup>3</sup> H]	•	•	•				
Catalytic Exchange with Tritium Gas	-						
Tritium Gas Exposure		•	•				
<sup>14</sup> C-Labeled Precursors	•	•					

# **Trust PerkinElmer for Radiochemical Competence and Safety**

No other company has invested more time and resources into safe radiochemical development and technology transfer than PerkinElmer. We manufacture products under an ISO 9001:2008 registered quality system. PerkinElmer can also perform custom radiosynthesis under GMP guidelines. \*Consistent with ICH Q7, Good Manufacturing Practice Guidance for Active Pharmaceutical Ingredient, August, 2001, Section 19, API's for Use in Clinical Trials.



<sup>14</sup>C, <sup>3</sup>H and <sup>35</sup>S Custom Synthesis Services

# **Radiosynthesis & Radiolabeling Services**

PerkinElmer's experienced chemists will work with you, scientist to scientist, to design and prepare your radiochemical. You'll have access to PerkinElmer's extensive technical support resources, both during the specification process and after delivery, to ensure your custom product meets your exact specifications and application needs. We offer industry-leading turnaround times on quotations and deliveries worldwide—and highly competitive pricing.

- Confidentiality guaranteed: we respect the proprietary nature of your work and of the materials you entrust to us, and so we conduct business to ensure utmost confidentiality. When it is necessary for you to disclose confidential information to us, we will promptly and efficiently process a nondisclosure agreement.
- **Fast quotation and delivery:** our international network of sales and technical specialists is organized to respond to your inquiries quickly, professionally, and definitively.
- ISO certified: we develop and manufacture custom products under an ISO 9001:2008 quality system, ensuring reliable traceability.
- **GMP compliant:** we provide dedicated custom radiochemical synthesis in our GMP laboratory suite in compliance with FDA GMP guidelines. Your synthesis is conducted by GMP trained chemists. You will receive a Certificate of Analysis with your product documenting the methods of analysis and the results versus your specifications, certified by our Custom Synthesis, Regulatory Affairs and Quality Assurance Managers.
- **GMP capabilities:** we have extensive experience with GMP manufacturing and we support Drug Master Files. We can manufacture your custom product under conditions consistent with 21 CFR 210.211, which is suitable for materials to be provided for clinical trial and development studies. Please specify GMP conditions when you request your quotation.

# <sup>14</sup>C, <sup>3</sup>H and <sup>35</sup>S Custom Synthesis Services

Our custom synthesis scientists are experts in dealing with the technically challenging synthesis of radiolabeled biochemicals, such as peptides, steroids, lipids and others. They routinely collaborate with chemists from our Analytical Laboratory to ensure the successful purification and analysis of final products.

## **Exacting Purity Standards**

- Every custom synthesis product is analyzed to ensure that it meets the purity requirements agreed to upon acceptance of the quotation.
- When your custom radiochemical is delivered, it is accompanied by a report detailing the analytical methods used and the results obtained.
- Purity is determined by analytical methods that may include HPLC, MS, NMR, GC, LC, UV spectrometry, and agarose and polyacrylamide gel electrophoresis.
- For novel custom radiochemicals, our Analytical Laboratory works with you and with our team of synthetic chemists to develop appropriate new analytical methods.

## **Chiral Synthesis and Chiral Separation**

We are experienced in synthesizing chiral compounds and performing chiral separations. We welcome your participation in selecting the most appropriate chiral methodology. Available methodologies include:

- Chiral compound synthesis: biosynthesis, enzymatic resolution, chiral auxiliaries, chiral catalysts.
- **Chiral HPLC:** separation of the target enantiomer from a racemic mixture.



# Tritium Labeling Service/Radioiodination Services

## Tritium <sup>3</sup>H Labeling Service

Our Tritium Labeling Service is a cost-effective way to prepare a <sup>3</sup>H-labeled radiochemical. The process includes:

- Reaction of the precursor you submit, according to the labeling method you select.
- Removal of the catalyst and labile tritium from the resulting crude product.
- Assay of the resulting crude product for total radioactivity.

Any additional procedures are executed upon written agreement prior to performance of the service.

When you discuss the requirements of your particular application with PerkinElmer scientists, they will discuss the available tritium labeling methods with you, recommend the best approach and describe the benefits and limitations of each method.\*

\*Please note: All tritiation methods expose the material to a radioactive field that causes decomposition of all materials present in the mixture. The nature and amount of decomposition depends on various factors, including the nature and amount of starting material, the amount of tritium employed, and the length of exposure to radiation. Other factors affecting decomposition are still undefined. Due to the great variety of materials handled, PerkinElmer cannot give a generalized statement about the nature or quantity of impurities to be expected.

# 125 and 131 Radioiodination Services

PerkinElmer will label your compound with <sup>125</sup>I or <sup>131</sup>I using the most appropriate radioiodination method and reagent quantities to meet your specifications. We can perform large scale iodinations (>10 mCi).

- Unbound iodide is removed from the labeled product(s) using HPLC or open column chromatography, depending on the characteristics of the molecule being iodinated.
- Typically, the product is assayed by TLC to verify that the free iodide content is <5%.
- To place an order:
  - Please submit chemically pure compounds for labeling, as any impurities present may also become labeled.
  - Upon placing your order, you will receive specific instructions for packaging, labeling, and shipping your compound to PerkinElmer
  - To expedite delivery, we encourage you to furnish appropriate labeling references.

# Radioiodination Services/Nucleotide & Oligonucleotide Synthesis

## **Radioiodination Services**

Iodination Method	Description	<sup>125</sup> I Product No.	<sup>131</sup> I Product No.
Bolton-Hunter reagent	Bolton-Hunter reagent is the N-hydroxysuccinimide ester of iodinated p-hydroxyphenylpropionic acid. The active ester acylates terminal amino groups with the iodinated p-hydroxyphenylpropionic residue, effectively introducing radioactive iodine into proteins and peptides. A non-oxidative technique, it is less harsh to proteins than alternative methods.	NEX088	NEX088A
Chloramine-T	Chloramine-T (p-toluene sulfonochloramide) is an effective method of labeling a variety of proteins and peptides. This oxidative method involves exposure of the substrate to Chloramine-T in the presence of Nal, [125]- or [131]-, for a short time and produces high specific activity proteins or peptides labeled with carrier-free radioiodine, but can be harsh.	NEX084	NEX084A
IODO-GEN® reagent	A solid phase oxidative method similar to the Chloramine-T method. It is generally considered to be milder, because the reaction takes place on the surface of the oxidant, minimizing exposure to the substrate.	NEX244	NEX244A
Lactoperoxidase	Lactoperoxidase catalyzes the oxidation of iodide using hydrogen peroxide as the enzyme substrate. It is a milder oxidative technique than Chloramine-T.	NEX083	NEX083A
Exchange labeling with sodium iodide	Conducted using standard published processes.	NEX086	NEX086A
Custom labeling methods	Propose a specific method to PerkinElmer for review, and if feasible, we will use it to perform your radioiodination.	NEX999	NEX999

# <sup>32</sup>P, <sup>33</sup>P and <sup>35</sup>S Nucleotide & Oligonucleotide Synthesis

PerkinElmer will synthesize and package radiolabeled mono-, di- and triphosphate nucleotides, oligonucleotides and other related biochemicals to your specifications on a make-to-order basis. We have extensive experience in labeling nucleotides in different positions (e.g., beta position) and synthesizing labeled oligos for hybridization.

# <sup>14</sup>C-Labeled Precursor Materials

To assist in your in-house synthesis of labeled compounds, PerkinElmer offers a number of <sup>14</sup>C-labeled precursors that can be purchased in large quantities.

- These precursors are routinely produced and are readily available with the same high purity specifications as comparable catalog compounds.
- We will provide custom packaging in special glassware to meet your unique protocol requirements. For many applications, such packaging is more convenient and saves material. Additional charges may apply.
- The table below contains a partial list of available precursors. Other precursors are available. Please inquire.

#### <sup>14</sup>C PRECURSOR MATERIALS

Precursor	Specific Activity [mCi/mmol]	Form and Packaging	Product No.
Acetanilide [¹⁴C]	40-100	Solid in screw capped vial	NEC822
Acetic acid, sodium salt, [1-14C]-	45–60	Ethanol	NEC084H
Acetic acid, sodium salt, [2-14C]-	45–60	Ethanol	NEC085H
Aniline hydrochloride, [14C(U)]-	50–100	Ethanol in silanized vial	NEL825
Barium carbonate, [14C]-	40–60	Crystalline solid	NEC009B
Benzene, [14C]-	40–60	Liquid in breakseal tube	NEC010H
Bromoacetic acid, [1-14C]-	40–60	Crystalline solid	PCM059
Bromoacetic acid, [2-14C]-	10–50	Crystalline solid	PCM011
Bromobenzene, [14C(U)]-	Up to 60	Liquid in sealed ampoule	PCM186
Chloroacetic acid, [1-14C]-	10–50	Crystalline solid	PCM087
Chloroacetic acid, [2-14C]-	10–50	Crystalline solid	PCM187
Chlorobenzene, [14C(U)]-	10–60	Liquid in sealed ampoule	PCM116
Ethyl acetate, [1-14C]-	10–55	Liquid in breakseal tube	PCM058
Ethyl acetate, [2-14C]-	10–55	Liquid in breakseal tube	PCM082
Formaldehyde, [ <sup>14</sup> C]-	40–60	Formaldehyde:Water (1:99) in sealed ampoule	NEC039H
Formic acid, sodium salt, [14C]-	40–60	Ethanol:Water (7:3)	NEC089H
Methanol, [14C]-	40–60	Liquid in breakseal tube	NEC059H
Methyl iodide, [14C]-	40–60	Liquid in breakseal tube	NEC068H
Nitrobenzene, [14C(U)]-	40–60	Liquid in sealed ampoule	PCM122
Paraformaldehyde [14C]	30–50	Solid in screw capped vial	NEC821
Phenol, [14C(U)]-	50–100	Ether in sealed ampoule	NEC824
Potassium cyanide, [14C]-	40–60	Crystalline solid	NEC079H
Sodium cyanide, [14C]-	40–60	Crystalline solid	NEC477B
Thiourea, [14C]-	40–60	Crystalline solid	NEC102H
Toluene, [ring-14C]-	50–100	Liquid in breakseal tube	NEC823
Urea, [14C]-	40–60	Ethanol	NEC108H
	<u> </u>		

# Analytical Services/Stable Isotope Labeling

## **Analytical Services**

The full range of analytical methods that PerkinElmer uses in the production and control of custom synthesized and labeled products are also available to customers on a contract basis. Our Analytical Services Department can perform the following analyses on your compounds:

- High Pressure Liquid Chromatography
- Thin Layer/Paper Chromatography
- NIMR
- Gas Liquid Chromatography
- Mass Spectrometry
- Molecular Weight Distribution
- High Pressure Size Exclusion Chromatography
- Photodiode Array

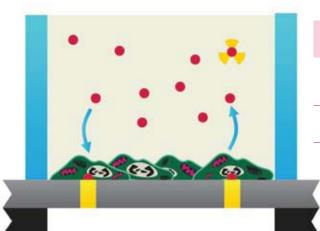
## **Stable Isotope Labeling**

We offer custom labeling with the stable isotopes <sup>2</sup>H, <sup>13</sup>C, <sup>15</sup>N and others. A wide range of compounds can be labeled with stable isotopes including NMR solvents, specialty gases, amino acids, cell growth media, nucleic acids and nucleosides, drugs and metabolites, fatty acids and lipids, and sugars. These can be used as internal or chromatographic standards and, increasingly, as labeled compounds in metabolic studies.

# PerkinElmer Spa Reagents and Technologies

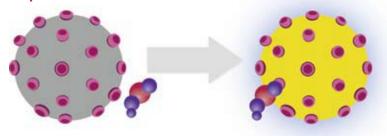
SPA reagents and CytoStar-T<sup>TM</sup> microplates let you see what you can't see with any other technology, so your research becomes more productive. SPA from PerkinElmer. The advantages become even clearer at <a href="https://www.perkinelmer.com/spa">www.perkinelmer.com/spa</a>.

# CytoStar-T Scintillating Microplates: radiometric detection in whole cells in real time



Microplate	Pack Size	Product Code
CytoStar-T - 96 well	5 pack 100 pack	RPNQ0162 RPNQ0163
CytoStar-T - 384 well	5 pack 50 pack	RPNQ0165 RPNQ0166

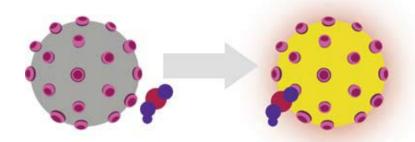
# SPA Scintillation Beads: blue light emitting beads read on PMT-based radiometric detectors: $MicroBeta^{2^{\intercal M}}$ and $TopCount^{\circledast}$



Coating	Application	Core Bead Type	Pack Size	Product Code
Streptavidin	capture of biotinylated proteins or peptides for use in enzyme assays or molecular interaction studies	PVT	50 mg 150 mg 500 mg 25 x 500 mg 2 G 25 x 2G	RPNQ0006 RPNQ0009 RPNQ0007 SPQ0032 RPNQ0066 RPNQ0067
		YSi	75 mg 250 mg	RPNQ0015 RPNQ0012
Wheat Germ Agglutinin (WGA)	binds cell membranes and internal components for receptor binding studies	PVT	100 mg 500 mg 25 x 500 mg 2G 25 x 2G	RPNQ0012 RPNQ0001 SPQ0031 RPNQ0060 RPNQ0063
		YSi	250 mg 1G	RPNQ0011 RPNQ0023
WGA PEI Type A	extra coating for reduced non-specific binding	PVT	500 mg 2G 25 x 2G	RPNQ0003 RPNQ0061 RPNQ0064
WGA PEI Type B	extra coating for reduced non-specific binding	PVT	500 mg 2G 25 x 2G	RPNQ0004 RPNQ0062 RPNQ0065
Polyethlyeneimine (PEI)	extra coating for reduced non-specific binding	PVT	500 mg	RPNQ0097
Poly - L- lysine	enhances binding of negatively charged membranes	YSi	1000 mg	RPNQ0010
PDE	measure of phosphodiesterase activity	YSi	500 mg 2G 25 x 2G	RPNQ0150 RPNQ0024 RPNQ0029
RNA binding beads	Uncoated YSi beads that interact with primary Phosphate groups in nucleotides, oligos, RNA and DNA; membranes can also bind	YSi	500 mg	RPNQ0013
Arginine binding beads	capture of arginine residues	YSi	500 mg	RPNQ0013
Copper chelate	capture and assay of His-tag	PVT	250 mg	RPNQ0095
copper chelate	fusion proteins or their binding partners	YSi	125 mg	RPNQ0096
Glutathione	capture and assay of GST-fusion proteins	PVT	750 mg 25 x 2G	RPNQ0030 RPNQ0036
		YSi	50 mg 500 mg	RPNQ0033 RPNQ0034
Protein A	binding of antibodies via the Fc portion of the antibody for RIA	PVT	500 mg 25 x 500 mg 2G	RPNQ0019 RPNQ0031 RPNQ0069
		YSi	500 mg 2G	RPN143 RPNQ0068
Anti-mouse antibody	capture of secondary antibody	PVT	500 mg	RPNQ0017
		YSi	500 mg	RPN141
Anti-rabbit antibody	capture of secondary antibody	PVT	500 mg 25 x 500 mg	RPNQ0016 RPQ0638
		YSi	500 mg	RPN140
Anti-sheep antibody	capture of secondary antibody	PVT	500 mg	RPNQ0018
SPA Scintillation Select-a-Bead Kit	Receptor binding studies	YSi PVT & YSi	500 mg 100 mg of 5 types*	RPN142 RPNQ0250

<sup>\*</sup> contains 100 mg each of WGA PVT; WGA YSi; WGA PEI type A; WGA PEI type B; and Poly-L-Lysine to allow quick and convenient receptor assay development using SPA Scintillation Beads.

# SPA Imaging Beads: red light emitting beads read on CCD-based radiometric detectors: ViewLux™

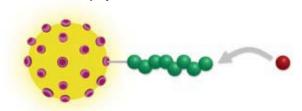


Coating	Application	Core Bead Type	Pack Size	Product Code
Streptavidin	capture of biotinylated proteins or peptides for use in enzyme assays or molecular interaction studies	PS	50 mg 500 mg 25 x 500 mg 2G 25 x 2G	RPNQ0263 RPNQ0261 RPNQ0285 RPNQ0306 RPNQ0307
		YOx	50 mg 500 mg 25 x 500 mg	RPNQ0273 RPNQ0271 RPNQ0283
Wheat Germ Agglutinin (WGA)	binds cell membranes and internal components for receptor binding studies with partially purified cell membrane preps or fractionated, solubilized receptor preps by	PS	50 mg 500 mg 25 x 500 mg 2G 25 x 2G	RPNQ0262 RPNQ0260 RPNQ0281 RPNQ0308 RPNQ0290
	immobilized receptors attached via glycosylation sites	YOx	50 mg 500 mg 25 x 500 mg	RPNQ0272 RPNQ0270 RPNQ0282
WGA PEI Type A	PEI treatment decreases non- specific binding to beads	PS	50 mg 500 mg	RPNQ0286 RPNQ0287
WGA PEI Type B	PEI treatment decreases non- specific binding to beads	PS	50 mg 500 mg	RPNQ0288 RPNQ0289
Polyethlyeneimine (PEI)	PEI treatment decreases non- specific binding to beads	PS	50 mg 500 mg	RPNQ0297 RPNQ0098
Poly - L- lysine	enhances binding of negatively charged membranes	PS YOx	50 mg 500 mg 2G 25 x 2G 2G	RPNQ0295 RPNQ00294 RPQ0786 RPQ0787
Membrane binding beads	Receptor binding studies	YOx	500 mg 25 x 500 mg 2G	RPQ0328 RPNQ0280 RPNQ0296 RPQ0785
Nickel chelate	capture and assay of His-tag fusion proteins	PS	50 mg 500 mg	RPNQ0267 RPNQ00266
		YOx	50 mg 500 mg	RPNQ0277 RPNQ0276
Glutathione	binding and assaying GST-fusion proteins	YOx	50 mg 500 mg	RPNQ0279 RPNQ0278
Protein A	capture of antibodies via the Fc portion of the antibody for RIA	PS 	50 mg 500 mg	RPNQ0265 RPNQ00264
	best for rabbit, mouse or guinea	YOx	50 mg 500 mg	RPNQ0275 RPNQ0274
Anti-mouse antibody	Affinity purified IgG designed for capture of secondary antibody	PS YOx	500 mg 500 mg	RPNQ0298 RPNQ0300
Anti-rabbit antibody	Affinity purified IgG designed for capture of secondary antibody	PSYOx	500 mg	RPNQ0299 RPNQ0301
Charge-based binding	capture and assay of GST-fusion proteins	YOx	500 mg	RPNQ0320
SPA Imaging Select-a-Bead Kit	Receptor binding studies	PS & YOx	50 mg of 5 types*	RPNQ0321

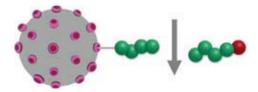
<sup>\*</sup> contains 50 mg each of WGA PS; WGA YOx; WGA PEI type A; WGA PEI type B; and Poly-L-Lysine to allow quick and convenient receptor assay development using SPA Imaging Beads.

# SPA Enzyme Assays: radiometric detection of enzyme activity on bound target

## Signal Increase Transferase and polymerase activities

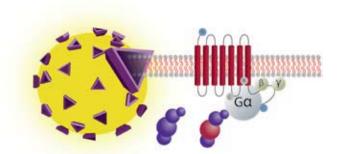


## Signal Decrease Hydrolase activities e.g. proteases, nucleases



Assay	Description	Pack Size	Product Code
QUAN-T-RT	Reverse transcriptase assay	200 assays	TRK1022
PDE [3H] cAMP assay	Phosphodiesterase assay	500 assays	TRKQ7090
PDE [3H] cGMP assay	Phosphodiesterase assay	500 assays	TRKQ7100
Thymidine uptake assay	Thymidine uptake assay	500 assays	RPNQ130

# SPA Receptor Assays: radiometric detection of Receptor-ligand binding



Assay	Description	Pack Size	Product Code
GTP $\gamma$ <sup>35</sup> S GPCR assay	GPCR-mediated guanine nucleotide	500 assays	RPNQ0210
	exchange can be monitored in this assay		

All prices are listed in USD and are subject to change without prior notice. We will be pleased to provide country specific, and institution-specific pricing upon request. To speak with your local representative please visit **www.perkinelmer.com/contactus.** 

# Radiation Safety Equipment Safety First

PerkinElmer is proud to offer you better controls to incorporate within your lab environment. We offer a variety of radiation safety equipment including shields, safety trays and tray liners, midi-boxes, waste bags and bins, available from PerkinElmer.

Additional information is available at

www.perkinelmer.com/radsafetyequipment.



#### RADIATION SHIELDS FOR BETA AND GAMMA RADIATION



Beta and gamma radiation shields provide clear non-distorted vision, have comfortable angles for working on the bench top, and are easy to clean. We offer both sitting and standing versions. All shields are  $27 \times 20 \times 15$  cm.

#### Radiation Safety Shield, Gamma (45° Angle)

Catalog # RPP-GS15LC

Large fixed 45° angle shield, with a curved base, for use with gamma radioisotopes. The fixed 45° angle shields provide clear, non-distorted vision, reducing light images and shadows, especially when the user is in a standing position.

#### Radiation Safety Shield, Beta (45° Angle)

Catalog # RPP-S45L

Large fixed 45° angle shield, with a flat base, for use with beta radioisotopes. The fixed 45° angle provides clear, non-distorted vision, reducing light images and shadows, especially when the user is in a standing position

## Radiation Safety Shield, Beta (15° Angle)

Catalog # RPP-S15LC

Large fixed 15° angle shield, with a curved base, for use with beta radioisotopes. The shield provides clear, non-distorted vision, reducing light images and shadows, especially when the user is in a seated position.

#### STORAGE BOXES FOR BETA AND GAMMA RADIATION



Medium and large capacity storage boxes with hinged lids.

#### Radiation Storage Box, Gamma (Large)

Catalog # RPP-GB14

Large Storage Box, with hinged lid, for gamma radiation protection. Dimensions 19 x 19 x 19 cm.

Radiation Storage Box, Gamma (Medium)

Catalog # RPP-GB6

Medium Storage Box, with hinged lid, for gamma radiation protection. Dimensions 11 x 11 x 11 cm.

Radiation Storage Box, Beta (Medium)

Catalog # RPP-B6

Medium Storage Box, with hinged lid, for beta radiation protection. Dimensions 11 x 11 x 11 cm.

#### **SAFETY TRAYS AND LINERS**



Reusable trays and liners, made of non-porous material, reducing cost and waste volume. They are easy to clean and have stabilized edges to prevent movement.

#### Safety Tray (Extra Large)

Catalog # RPP-TY11354

The rigid PVC base features specially designed stabilizing edges and rounded corners for easy cleaning.

External dimensions, 113 x 54 cm. Internal dimensions, 100 x 42 cm.

### Safety Tray (Large)

Catalog # RPP-TY6854

The rigid PVC base features specially designed stabilizing edges and rounded corners for easy cleaning.

External dimensions, 68 x 54 cm. Internal dimensions, 56.5 x 42.5 cm.



# Safety Tray Liners (Extra Large) package of 25

Catalog # RPP-TL11354

Unlike disposable paper bench protectors, the tray liners are reusable. Additionally, the liner's non-porous surface allows valuable samples to be retrieved, something which is clearly not possible with absorbent paper protectors. For use with the Safety Tray (Extra Large), Catalog # RPP-TY11354. External dimension, 113 x 54 cm. Internal dimension, 100 x 42 cm. Package of 25.

#### Safety Tray Liners (Large) package of 25

Catalog # RPP-TL6854

Unlike disposable paper bench protectors, the tray liners are reusable. Additionally, the liner's non-porous surface allows valuable samples to be retrieved, something which is clearly not possible with absorbent paper protectors. For use with the Safety Tray (Large), Catalog # RPP-TY6854. External dimensions, 68 x 54 cm. Internal dimensions, 56.5 x 42.5 cm. Package of 25.

#### WASTE BINS AND BAGS



Large capacity waste bin and heavy-duty double sealed waste bags.

#### Radiation Waste Bin, Beta

Catalog # RPP-B12

Covered Radiation Waste Bin for beta radiation. For use with Radiation Waste Bags, Catalog # RPP-BAG17.

Dimensions, 9 x 9 x 9 cm. Capacity, 1 L.

## Radiation Waste Bags (package of 25)

Catalog # RPP-BAG17

Heavy-duty, double heat-sealed, 500 gauge, polyethylene, with double string neck pull, with radiation label. For use with Radiation Waste Bin, Beta, Catalog #RPP-B12. Dimensions, 12 x 12 x 12 cm. Package of 25.

PerkinElmer is the world leader in radiometric detection instrumentation with a reputation for high performance and reliability. Our range of superior liquid scintillation analyzers and gamma counters is designed around your research needs, so you get the level of performance you need for the applications your laboratory performs.

# **Tri-Carb Liquid Scintillation Analyzers**

PerkinElmer's range of computer-controlled, vial-based benchtop liquid scintillation analyzers (LSA) are the most frequently cited LSA's in the scientific literature. Tri-Carb® analyzers are the most versatile and sensitive instruments available for detecting small amounts of alpha, beta and gamma radioactivity.

**Applications:** Research and environmental applications including radon in water, nuclear power station monitoring, biofuel analysis, radiocarbon dating, radiolabeling studies, biochemical pathway analysis, swipe/wipe assays, <sup>51</sup>Cr release assays, radioimmunoassay (RIA), <sup>3</sup>H thymidine uptake assays, enzyme purification studies and ligand receptor binding assays.

#### Top Features:

- High dynamic range quench monitoring.
- Intelligent sample changer and safe gravity feed sample loading.'
- TR-LSC capability for time-resolved counting.
- Sample activity data screening.





# **QUANTULUS Liquid Scintillation Spectrometer**

An ultra-low level spectrophotometer and dedicated environmental counter that delivers proven unsurpassed performance measuring extremely low levels of man-made, cosmogenic and other natural radionucleotides. Quantulus® provides the lowest possible <sup>3</sup>H backgrounds and the highest beta and/or alpha liquid scintillation sensitivity and counting performance resulting in excellent long-term stability.

**Applications:** Applications range from drinking water analyses of radon, food control for <sup>90</sup>Sr, radioactive effluent measurements at nuclear power plants, emergency preparedness for nuclear power and homeland security, radiocarbon dating, biofuel and other bio-based material analyses.

#### Top Features

- Hundreds of user-controlled tailored counting configurations, in addition to defaults.
- Random access sample changing.
- Data process and plot up to six spectra on screen.
- WinQ Software coordinates data storage for different users.

### TopCount Liquid Scintillation and Luminescence Counters

Choose TopCount®, for high efficiency, low background counting in 24-, 96- or 384-well microplates and microvials, filterplates and filtermats, opaque microplates and scintillating plates, such as FlashPlates®. Windows XP®-based operating software and built-in Hologram® relational database software automatically store the data for every sample you count, so you don't have to worry about losing data.

**Applications:** Liquid and dry scintillation and luminescence methods for research including cell proliferation assays, ligand-receptor binding assays, <sup>51</sup>Cr release assays, reporter gene assays, scintillation proximity assays (SPA), radio-immunoassay (RIA), enzyme purification studies and more.

#### **Top Features:**

- Patented TR-LSC counting technology for time-resolved counting and virtually crosstalk-free counting when used with opaque plates. High sensitivity TR-LSC technology discriminates between background and true counts by analyzing the decay period of each scintillation event.
- External plate stackers load more than 15,000 samples.
- Robotic integration option for unlimited throughput.
- High sensitivity luminescence counting provides linearity to over 20 x 10<sup>6</sup> CPS.
- Crosstalk correction algorithms for large volume <sup>32</sup>P and <sup>125</sup>I samples.



#### MicroBeta<sup>2</sup> Liquid Scintillation and Luminescence Counters

MicroBeta<sup>2™</sup> counters are multi-detector instruments designed for liquid scintillation or luminescence detection of low and



MicroBeta<sup>2</sup> LumiJET<sup>TM</sup> is a multi-detector (1, 2, 6 or 12 detectors) instrument designed for glow and flash luminescence detection as well as for liquid scintillation counting with dispensing capabilities for kinetic luminescence applications, two dispensers per detector for up to 384-well plates and twelve detectors (depending on model).

**Applications:** Liquid and dry scintillation and luminescence methods for research including cell proliferation assays, ligand-receptor binding assays, radioimmunoassay (RIA), enzyme purification studies, all flash and glow luminescent technologies such as Aequorin/Ca2+ measurement and dual label reporter gene assays, as well as traditional GPCR filtration assays or scintillation proximity assays.

#### **Top Features:**

- MicroBeta<sup>2</sup> LumiJET has flash and glow luminescence measurement capabilities ideal for Aequorin assay development.
- Counting modes include single and dual label CPM, single and dual label DPM, ParaLux™ count mode and luminescence counting.
- Proprietary Time-Resolved Liquid Scintillation Counting (TR-LSC) mode improves counting capabilities significantly with opaque plates and low energy isotopes.
- Supports up to 384-well plates.
- Built-in GLP compliant software.



# The Model 307 Sample Oxidizer

The Model 307 Oxidizer utilizes the patented "open/close" flame oxidation technology that offers a simple, automatic method of preparation for samples that are otherwise difficult to prepare for liquid scintillation counting, for both single- and dual-labeled environmental experiments, industrial and biological samples.

**Applications:** <sup>14</sup>C and <sup>3</sup>H analysis to determine radiolabel content.

#### **Top Features:**

- Overcome costly chemical sample preparation.
- Eliminates problems associated with non-soluble samples and severe quenching.
- Substantially improves effective, precise sample combustion.
- Yields 100% isotope separation in dual-label experiments.
- Allows combustion of soil samples with excellent recovery.





## **Cyclone Plus Storage Phosphor System**

The Cyclone<sup>™</sup> Plus Storage Phosphor System lets you perform high resolution, filmless autoradiography right on your bench top.

This affordable imager is fast and easy to use, providing unsurpassed sensitivity, digital image analysis and flexibility.

**Applications:** In vitro imaging of tissue sections using <sup>3</sup>H or <sup>14</sup>C, PET or <sup>125</sup>I. Analysis of purity for radiotherapy and PET products, including: <sup>99m</sup>Tc, <sup>18</sup>F, <sup>90</sup>Y and <sup>177</sup>Lu. Nucleotide metabolism studies involving TLC of <sup>32</sup>P and <sup>33</sup>P. Gene and protein expression studies using <sup>32</sup>P- and <sup>33</sup>P-labeled DNA or <sup>14</sup>C- and <sup>35</sup>S-labeled protein 2-D gels.

#### **Top Features:**

- **Highly sensitive:** Linear dynamic range of five orders of magnitude.
- Simultaneous exposures: 10 to 100X faster than film
- **High resolution image:** laser beam width of 50 microns.

# **Radiomatic Flow Scintillation Analyzers**

Complete flow scintillation systems optimized for monitoring single or dual-labeled radioisotopic samples separated by liquid chromatography. Our Radiomatic FSAs are the most frequently cited FSAs worldwide for online monitoring of radiolabeled samples during HPLC separation, because of their superior detection sensitivity, validated performance and proven reliability.

**Applications:** Liquid scintillation (homogeneous) or solid scintillation (heterogeneous) applications.

#### **Top Features:**

- Uses state-of-the-art scintillation counting technology.
- Superior quantitative analysis is ensured by a multi-channel analyzer with discrete counting windows.
- Patented TR-LSC® technology for reducing external background interference.
- Luminescence detection and correction to eliminate chemiluminescence interference.





#### WIZARD<sup>2</sup> Automatic Gamma Counters

Used in clinical and academic research labs around the world delivering outstanding performance for all types of samples in all counting applications. Unique well-type detectors and sample changer system with advanced robotics, and highly-effective lead shielding, delivers high counting efficiency, constant background and minimal crosstalk. Built-in WorkOut software provides comprehensive onboard data reduction and QC.

**Applications:** Radioimmunoassays (RIA), chromium (<sup>51</sup>Cr) release studies, hematology testing, Schilling testing, cell labeling, multi-nuclide studies and nuclear medicine applications, such as PET research applications, and more.

#### **Top Features:**

- User-friendly software with touch-screen operation.
- Easy networking capability.
- USBports for simple data transfer.

# Scintillation Cocktail Comparison

The table below provides information to help you choose the correct cocktail. This depends on the nature of the sample to be counted as well as the sample preparation procedure and instrument used. Only the right cocktail choice, paired with a correct sample preparation procedure and instrument, will result in accurate and reproducible counting results.

Visit our website www.perkinelmer.com/ToolKit to use our online Cocktail Selector.

				COUNTI	NG EFFICII	ENCY1-%		SA	MPLE LOAD	CAPACITY	<sup>2</sup> – mL	
	COCKTAIL	TYPE OF SOLVENT	FLASH-POINT °C/Tag CC.	No Sample	With 10% Water	With 10% Solublizer	Water	0-0.05 M	0.05-0.2 M	0.2-0.5 M	0.5 <b>–</b> 1.0 M	Over 1.0 M
	ULTIMA GOLD	DIPN	~150	56	52	49³	3.2	3.0-6.0	3.0-5.0	2.0-4.0	1.0-4.0	0-3.0
	ULTIMA GOLD XR	DIPN	~150	50	46	N.A.	10.0	8.0-10.0	8.0-10.0	5.0-8.0	3.0-7.0	0-5.0
	ULTIMA GOLD LLT	DIPN	~140	52	46	N.A.	12.0		———Optimiz	ed for all wat	er types—–	
m	ULTIMA GOLD MV	DIPN	~110	57	55	N.A.	1.0	1.0-3.0	2.0-4.0	2.0-4.0	0-2.0	*
SAMPLES	ULTIMA GOLD AB	DIPN	~140	52	46	N.A.	10.0		Optimized	for 1–2 M m	ineral acids-	
SAN	HISAFE 2	DIPN	~150	56	52	49 <sup>3</sup>	≥3.0	3.0-6.0	3.0-5.0	2.0-4.0	1.0-4.0	0-3.0
SNO	HISAFE 3	DIPN	~150	50	46	N.A.	≥4.0	8.0-10.0	8.0-10.0	5.0-8.0	3.0-7.0	0-5.0
AQUE	OPTI-FLUOR	Linear Alkylbenzene	~150	44	40	N.A.	1.5	1.5-2.0	1.5-2.5	0.5-1.0	*	-
FOR AQUEOUS	EMULSIFIER-SAFE	Linear Alkylbenzene	~150	43	39	N.A.	1.5	1.5	1.5	1.0–1.5	0.5-1.0	-
-AILS	INSTA-GEL PLUS	Pseudocumene	48-50	56	48	N.A.	1.8 & 3-10	1.8 & 3-10	1.8 & 3-10	0.5-1.0 & 3-10	0.5-1.5	0.1-1.5
COCKTAILS	PICO-FLUOR 15	Pseudocumene	48-50	57	53	N.A.	1.5	1.5-2.0	1.5-2.5	0.5-1.0	-	-
ŏ	PICO-FLUOR 40	Pseudocumene	48-50	51	45	N.A.	2.5	1.5-2.0	5.0–10.0	2.0-2.4	1.0-2.0	0.5-1.0
	FILTER-COUNT	Pseudocumene	48-50	57	53	N.A.	1.0	*	*	*	*	*
	HIONIC-FLUOR	Pseudocumene	48-50	51	45	48	1.0	*	*	1.0-1.5	1.5-2.5	1.5-4.0
LES	ULTIMA GOLD F	DIPN	~150	65	N.A.	N.A.						
AMP	BETAPLATE SCINT	DIPN	~150	65	N.A.	N.A.			For organic	•		
ORAGNIC SAMPLES	OPTI-FLUOR O	Linear Alkylbenzene	~150	59	N.A.	N.A.	dried filter membranes only.					
ORA	INSTA-FLUOR PLUS	Pseudocumene	48-50	65	N.A.	57		ı	or organic	samples onl	y.	

<sup>1</sup> Typical counting efficiencies determined on a PerkinElmer Tri-Carb 3100TR/LL (preset <sup>3</sup>H region, 0–18.6 keV).

\* = limited capacity
- = no capacity

# **Various Sample Preparation Techniques**

Treatment	Description	Examples
1. Dissolving	Dissolve sample directly into the cocktail or use a co-solvent	Organic samples, e.g., lipids, steroids, etc. dissolved. directly in LSC cocktails.
2. Emulsifying	Aqueous samples counted in "surfactant-containing" LSC cocktails (colloidal-solutions).	Various salt/buffer solutions, acids and alkaline samples in ready-for-use LSC cocktails.
3. Suspending	Suspend insoluble particles in a stable gel phase.	Soil samples in Insta-Gel Plus.
4. Extracting or Eluting	Dissolving labeled compounds from solid phase into solution.	TLC-scrapings, paper-chromatograms, polyacrylamide gel slices, cellulose nitrate filters.
5. Solubilizing	Digesting tissue material (biological) using alkaline hydrolysis (tissue solubilizer).	Cell material, feces, tissue samples digested in Soluene-350 or SOLVABLE.
6. Wet Oxidation	Digesting sample material with strong acids and peroxides.	Digestion of plant material in nitric acid or perchloric acid with hydrogen peroxide.
7. Combustion	Combusting of dry and wet samples with trapping of <sup>14</sup> CO <sub>2</sub> and <sup>3</sup> H <sub>2</sub> O in suitable trapping agents.	Absorbtion of ¹⁴CO₂ in Carbo-Sorb E, Soluene-350 or Hyamine™ Hydroxide; ³H,O in Monophase S.

<sup>2</sup> Typical maximum sample volume (mL) per 10 mL cocktail at 20 °C.

<sup>3</sup> Ultima Gold with tissue solubilizers, preferably counted within 24 hours.

# Safer LSC Cocktails ULTIMA Gold Family

Occupational safety in laboratories is of unquestioned importance. Traditional scintillation cocktail formulations contain flammable, toxic solvents that permeate through polyethylene and may represent a hazard to laboratory workers, create disposal problems that place strains on the environment, and often add hidden lab costs. PerkinElmer has addressed these problems by offering several lines of safer LSC cocktails.

# **ULTIMA Gold Family**

Beginning in the early 1980's, user and environmental safety concerns led to the introduction of cocktails based on high flash point solvents. Research conducted by Packard BioSciences Corp., later acquired by PerkinElmer, led to the development of the ULTIMA Gold<sup>TM</sup> family, high performance cocktails with the following properties:

- Very high flash point: simplifies transportation and eliminates special storage requirements.
- Very low vapor pressure: nonvolatile.
- Low toxicity.
- Nonflammable.
- High counting efficiency.
- High quench resistance.
- No diffusion through PE vials.

#### **ULTIMA Gold**

ULTIMA Gold is a safer liquid scintillation cocktail for a wide range of aqueous and non-aqueous samples. This multipurpose LSC cocktail has a high counting efficiency and provides superior detection efficiency for samples that exhibit severe quench in conventional cocktails.

#### **ULTIMA Gold AB**

Specifically designed for alpha/beta discrimination in liquid scintillation counting, ULTIMA Gold AB provides the slow pulse decay characteristics necessary for effective alpha/beta discrimination. Its excellent sample holding capacity makes ULTIMA Gold AB ideal for a variety of both aqueous and acidic sample types.

#### **ULTIMA Gold F**

ULTIMA Gold F is a high efficiency cocktail for counting dry filter supports, as well as non-aqueous (organic) samples. For alpha/beta LSC counting, ULTIMA Gold F is an ideal diluent for ULTIMA Gold AB, increasing energy pulse-shape resolution for small volume samples.

#### **ULTIMA Gold LLT**

Determine low levels of <sup>3</sup>H in a wide range of water samples without distillation using ULTIMA Gold LLT. It accepts up to 54% tap water, river water, rain water, and even sea water, with <sup>3</sup>H counting efficiencies of approximately 30% and with very low background levels. When used with PerkinElmer's Tri-Carb® Liquid Scintillation Analyzers or the QUANTULUS® Ultra Low Level Liquid Scintillation Spectrometer, minimum detectable activities are less than 1.1 Bq/L (500 minute count time).

## **ULTIMA Gold uLLT**

ULTIMA GOLD uLLT is perfect for ultra low level LSC applications using PerkinElmer's Quantulus™. The ultra low background, high efficiency and good sample uptake is optimal for environmental monitoring applications (e.g. drinking water testing) of course, all counting conditions have to be optimized for best results.



**ULTIMA** Gold



**ULTIMA Gold XR** 



ULTIMA Gold LLT

# Safer LSC Cocktails

# **OptiPhase HiSafe Family**

#### **ULTIMA Gold MV**

Ultima Gold MV is specifically formulated for the rapid uptake of aqueous and non-aqueous samples. It is recommended for counting wet or damp glass fiber filters from cell harvesters. It is also ideal for counting small volume samples in miniature vials and microtubes because of its reduced viscosity compared to other high flash point cocktails.

#### **ULTIMA Gold XR**

ULTIMA Gold XR is a safer liquid scintillation cocktail with a very high sample load capacity. Choose it to count large sample volumes, or when using miniature vials to increase throughput, reduce cost per sample or minimize radioactive waste. ULTIMA Gold XR is compatible with alkaline samples.

Product	Product No.	Size
ULTIMA Gold	6013321	1 x 1 L
	6013326	1 x 5 L
	6013327	4 x 2.5 L
	6013329	2 x 5 L
	6013322	1 x 25 L
ULTIMA Gold AB	6013301	1 x 1 L
	6013309	2 x 5 L
	6013171	1 x 1 L
ULTIMA Gold F	6013179	2 x 5 L
ULTIMA Gold LLT	6013371	1 x 1 L
	6013377	4 x 2.5 L
ULTIMA Gold uLLT	6013681	1 x 1 L
	6013687	4 x 2.5 L
ULTIMA Gold MV	6013151	1 x 1 L
	6013159	2 x 5 L
ULTIMA Gold XR	6013111	1 x 1 L
	6013117	4 x 2.5 L
	6013119	2 x 5 L

Sample sizes of all products in table above are available. To order a sample, please contact your PerkinElmer Sales Representative.

## **OptiPhase HiSafe Family**

A major technological advance in safer LSC cocktails, our OptiPhase<sup>TM</sup> HiSafe® family of safer LSC cocktails uses the solvent di-isopropylnaphthalene (DIN) to achieve improved safety without decreasing performance.

#### OptiPhase HiSafe 2

OptiPhase HiSafe 2 is a general-purpose liquid scintillation cocktail. It combines very high counting efficiency with moderate to high sample holding capacity for a wide range of aqueous and non-aqueous solutes.

## OptiPhase HiSafe 3

OptiPhase HiSafe 3 is a liquid scintillator that handles a broad range of solutes. Used for a variety of scintillation applications, it combines good counting efficiency with a very high level of sample acceptance, particularly for high ionic strength solutes.

#### OptiPhase SuperMix

OptiPhase SuperMix has been specially formulated for use with microplates. It mixes easily with a wide variety of aqueous solutes and has a very high uptake capacity, minimizing cocktail use and reducing disposal problems.

## **Betaplate Scint**

Betaplate Scint is a HiSafe cocktail for samples harvested or spotted onto dry filter membranes. High counting efficiency may eliminate sample pre-treatment often necessary with conventional cocktails. Ideal for use with samples in organic solutions.

Product	Product No.	Size
OptiPhase HiSafe 2	1200-436	1 x 5 L
OptiPhase HiSafe 3	1200-437	1 x 5 L
OptiPhase SuperMix	1200-439	1 x 5 L
Betaplate Scint	1205-440	1 x 5 L

# Safer LSC Cocktails Opti-Fluor Family/Other Safer LSC Cocktails

## **Opti-Fluor Family**

Our Opti-Fluor® cocktails are universal, safer liquid scintillation cocktails designed for use with polyethylene vials.

#### Opti-Fluor

Based on the high flash point solvent LAB (linear alkyl benzene), Opti-Fluor does not show any diffusion through the walls of polyethylene vials (observed with many LSC cocktails containing toluene, xylene or pseudocumene).

#### **Opti-Fluor O**

Opti-Fluor O is used for counting organic (non-aqueous) samples. It will accommodate many organic solvents, forming clear liquid solutions yielding good counting efficiencies.

Opti-Fluor O can replace classical toluene-, xylene- or pseudocumene-based LSC cocktails for organic samples. Opti-Fluor O is ideally suited for counting radon in water when a safer cocktail is preferred.



Opti-Fluor

Product	Product No.	Size
Opti-Fluor	6013194	1 x
Opti-Fluor	6013199	2 x 5 L
Opti-Fluor O	6013331	1 x 1 L
Opti-Fluor O	6013339	2 x 5 L

Sample sizes of products in table above are available. To order a sample, please contact your PerkinElmer Sales Representative.

#### Other Safer LSC Cocktails

#### **Emulsifier-Safe**

Emulsifier-Safe™ is a LAB-based cocktail that is economically priced for aqueous and organic samples. Aqueous samples and many buffer solutions are accepted in a single liquid phase up to a 10 to 15% sample load.

## **High Efficiency Mineral Oil Scintillator**

High Efficiency Mineral Oil Scintillator is the cocktail of choice for the detection of radon in water and soil samples. It yields a high counting efficiency and provides the same accuracy as solid detectors for radon. It has a low volatility and a high flash point (79° C/175°F).

Product	Product No.	Size
Emulsifier-Safe	6013389	2 x 5 L
High Efficiency Mineral Oil Scintillator	6NE9571	1 x 1 L
	6NE9579	4 x 2.5 L

PerkinElmer also offers several safer alternative flow scintillation cocktails and tissue solubilizers.

# Classical LSC Cocktails

# **Emulsifying Cocktails/Pico-Fluor Family**

PerkinElmer offers classical liquid scintillation cocktail formulations that are optimized for the highest counting efficiency and maximum sample holding capacity. Our prepared cocktails are easy-to-use, save preparation time and minimize laboratory errors. Our carefully controlled blending and quality assurance procedures provide high performance, batch homogeneity and lot-to-lot uniformity.

## **Emulsifying Cocktails**

#### **Pico-Fluor Family**

The Pico-Fluor™ family is a range of pseudocumene-based liquid scintillation counting cocktails.

#### Pico-Fluor 15

Pico-Fluor 15 is specifically formulated to provide accurate and reproducible high efficiency counting of aqueous samples. It will accept up to 2 mL of a wide variety of aqueous samples in 10 mL of cocktail. The continuous single liquid phase, formed from zero to the maximum acceptable sample load, avoids unexpected two-phase separation.

#### Pico-Fluor 30

Pico-Fluor 30 is a complete, ready-to-use cocktail specially formulated for counting high sample loads of aqueous solutions. It excels in the incorporation of samples such as phosphate-buffered saline with sample loads often exceeding 30%.

#### Pico-Fluor 40

Pico-Fluor 40 is a universal cocktail for use with both conventional 20 mL size vials and miniature vials. It has a large sample holding capacity and high quench resistance and is compatible with tissue solubilizers.

### Filter-Count

Filter-Count™ is specifically formulated to dissolve cellulose nitrate membrane filters. It can also dissolve mixed cellulose esters and polyvinyl chloride (PVC) filters, although these sample types may require additional time. Filter-Count will dissolve wet or dry filters, reducing sample preparation procedures and improving counting results by enabling the use of external standard quench monitoring.

#### **Hionic-Fluor**

Hionic-Fluor<sup>TM</sup> is a cocktail for samples with high ionic strength and solubilized samples in strong alkaline media. It is recommended for counting concentrated sucrose or cesium chloride gradients. Hionic-Fluor exhibits extremely fast chemiluminescence decay with alkaline solutions or tissue solubilizers such as Soluene<sup>®</sup>-350 and SOLVABLE<sup>TM</sup>.



Classical LSC Cocktails



Hionic-Fluor

Product	Product No.	Size
Filter-Count	6013141	1 x 1 L
	6013149	2 x 5 L
Hionic-Fluor	6013311	1 x 1 L
	6013319	2 x 5 L
	6013312	1 x 20 L
Pico-Fluor 15	6013051	1 x 1 L
	6013059	2 x 5 L
Pico-Fluor 30	6013041	1 x 1 L
	6013049	2 x 5 L
Pico-Fluor 40	6013341	1 x 1 L
	6013349	2 x 5 L

# Classical LSC Cocktails Other Classical Cocktails

#### Aquasol-2

Aquasol<sup>TM</sup>-2 is a second generation, universal LSC cocktail that improves and extends the features of its predecessor cocktail, Aquasol. It is xylene based and is suitable for difficult-to-count samples. Aquasol-2 yields high counting efficiencies while still accepting water samples up to 50% loading.

#### **Atomlight**

Atomlight<sup>®</sup> is a pseudocumene-based LSC cocktail that is ideal for counting high salt concentration aqueous samples. It holds the maximum amount of sample in the minimum amount of cocktail and is ideal for use with miniature vials.

#### **Biofluor**

Biofluor<sup>®</sup> is a pseudocumene-based LSC cocktail ideal for counting low to intermediate volumes of aqueous samples. It is a high efficiency monophasic cocktail that will accommodate up to 2 mL of aqueous sample in 15 mL cocktail.



Aquasol-2 and Insta-Gel Plus

#### Insta-Fluor Plus

Insta-Fluor™ Plus is a pseudocumene-based cocktail blended for optimal counting of organic samples and non-aqueous solutions. Simply combine the organic sample with Insta-Fluor Plus, shake to ensure homogeneity and count. Insta-Fluor Plus is ideally suited for use in two-phase extraction assays (e.g., CAT assays).

#### **Insta-Gel Plus**

Insta-Gel Plus is the cocktail of choice for a large variety of applications. It excels in the incorporation of water and aqueous-soluble samples and is equally useful for organic-soluble samples. Due to the very high sample holding capacity and its typical gel formation, Insta-Gel Plus is ideal for counting large volumes of water, TLC scrapings and suspended solids.

Product	Product No.	Size
Aquasol-2	6NE9521	1 x 1 L
	6NE9529	2 x 5 L
Atomlight	6NE9689	2 x 5 L
Biofluor	6NE9611	2 x 5 L
	6NE9619	2 x 5 L
Insta-Fluor Plus	6013121	1 x 1 L
	6013127	4 x 2.5 L
Insta-Gel Plus	6013391	1 x 1 L
	6013399	2 x 5 L

# Classical LSC Cocktails

# Sample Oxidizer Reagents

#### Carbo-Sorb E

Carbo-Sorb® E is a high capacity radioactive carbon dioxide absorber compatible with the counting cocktail Permafluor® E+.

## **Sample Oxidizer Cocktails**

These pseudocumene-based oxidizer cocktails are designed for use with PerkinElmer's Sample Oxidizer to ensure superior performance and consistently reliable results.

#### Monophase S

Monophase<sup>®</sup> S is specifically formulated for counting pure water samples. It will accept up to 23% water, forming a clear fluid that yields outstanding counting efficiencies. It does not foam and does not form a gel, even at extreme mixing ratios (washing cycle). It is the cocktail of choice for obtaining the highest <sup>3</sup>H counting performance from a Sample Oxidizer.

#### Permafluor E+

Permafluor® E+ is uniquely designed for counting  $\rm ^{14}CO_2$  samples that are trapped in Carbo-Sorb E.



Carbo-Sorb E



Permafluor E+

Product	Product No.	Size
Carbo-Sorb E	6013721	1 x 1 L
	6013729*	4 x 2.5 L
Monophase S	6003043	1 x 1 L
	6013107	4 x 2.5 L
	6013109	2 x 5 L
Permafluor E+	6013181	1 x 1 L
	6013187	4 x 2.5 L

 $<sup>^{*}</sup>$  Product No. 6013729 is only available for shipment within Europe.



# Flow Detection Cocktails

# ULTIMA-Flo Safer Flow Detection/Flo-Scint Classical Flow Detection

# **Flow Detection Cocktails**

Our flow detection cocktails are specially designed for use with PerkinElmer's Flow Scintillation Analyzer.

# **ULTIMA-Flo Safer Flow Detection Cocktail Family**

The ULTIMA-Flo™ family includes three, biodegradable cocktails for use in flow scintillation analyzers. The high loading capacity of the ULTIMA-Flo cocktails means less cocktail required, longer residence times and higher sensitivity.

### **ULTIMA-Flo AF**

ULTIMA-Flo AF is formulated to accept gradients up to  $2.0~\mathrm{M}$  ammonium formate at a 1:1 ratio with fast and easy mixing. It is the cocktail of choice when using ammonium formate buffers to elute radiolabeled inositol phosphates from HPLC columns.



### **ULTIMA-Flo AP**

ULTIMA-Flo AP accepts gradients up to 2.0 M ammonium phosphate with fast and easy mixing. It demonstrates high counting efficiency and quench resistance for a wide variety of sample types.

#### **ULTIMA-Flo M**

ULTIMA-Flo M is formulated for multipurpose flow counting applications. This safer cocktail has a high sample acceptance for a wide range of dilute HPLC eluents, and methanol and acetonitrile gradients. ULTIMA-Flo M has low viscosity, unique rapid mixing properties and is resistant to chemiluminescence.

Product	Product No	. Size
ULTIMA-Flo AF	6013589	2 x 5 L
ULTIMA-Flo AP	6013591	1 x 1 L
	6013592	1 x 20 L
	6013599	2 x 5 L
ULTIMA-Flo M	6013571	1 x 1 L
	6013572	1 x 20 L
	6013576	1 x 5 L
	6013579	2 x 5 l

Sample sizes of ULTIMA-Flo AP and ULTIMA-Flo M are available. To order a sample, please contact your PerkinElmer Sales Representative.

The ULTIMA-Flo series can replace the complete family of Flo-Scint and similar cocktails. ULTIMA-Flo cocktails outperform the classical cocktails on mixing ratio (up to 1:1). They also provide the user with the safety features related to the high flash point solvent system.

# **Flo-Scint Classical Flow Detection Cocktail Family**

The classical Flo-Scint™ cocktails are pseudocumene-based flow cocktails that have gained an excellent reputation when gradients, especially those with methanol and acetonitrile, need to be counted. They are resistant to chemiluminescence and are non-gelling.

#### Flo-Scint II

Flo-Scint II can be used with polar solvents and dilute buffers affording good sample loading capacity and low viscosity.

### Flo-Scint III

Flo-Scint III is designed to work with methanol and aceto-nitrile gradients as well as moderately buffered solutions, including phosphates. It has good sample loading capacity, low viscosity and high counting efficiency.

# Flo-Scint A

Flo-Scint A is suitable for acetonitrile/water gradients, for counting polar organic solvents and dilute salt solutions. It has excellent sample loading capacities at up to 50% in aqueous solutions. Flo-Scint A is also resistant to chemiluminescence, is non-gelling and has a high counting efficiency.

Product	Product No.	Size
Flo-Scint II	6013529	2 x 5 L
Flo-Scint III	6013539	2 x 5 L
Flo-Scint A	6013569	2 x 5 L

# Cocktails & Scintillators for Microplates MicroScint LSC Cocktails

# **MicroScint LSC Cocktails**

Specifically formulated for use with PerkinElmer's TopCount Microplate Scintillation and Luminescence Counter, MicroScint<sup>TM</sup> cocktails mix easily with samples for rapid uptake of aqueous and non-aqueous samples in microplates. These cocktails provide you with a choice of optimal characteristics, including excellent counting efficiency, high sample capacity, quench resistance and polystyrene compatibility.

#### MicroScint-20

MicroScint-20 cocktail accepts dilute aqueous samples at up to 20% loading (up to 25  $\mu L$  in 100  $\mu L$  MicroScint-20). With these sample types, MicroScint-20 cocktail mixes easily and completely upon agitation with an orbital shaker. It is the cocktail of choice for counting filters that have not been completely dried.

MicroScint-20 has an absolute, unquenched tritium efficiency of approximately 52% when measured in a 24-well white polystyrene OptiPlate™ microplate.

#### MicroScint-40

MicroScint-40 cocktail accepts dilute aqueous samples at up to at least 40% loading (up to 70  $\mu$ L in 100  $\mu$ L MicroScint-40). It also mixes easily with most sample types but slightly longer agitation may be necessary when handling large sample volumes.

MicroScint-40 has an absolute, unquenched tritium efficiency of approximately 40% when measured in a 24-well white polystyrene OptiPlate microplate.

MicroScint E cocktail is used for assays that require in situ partitioning of the radionuclide-containing lipid phase from the aqueous phase in microplates. This cocktail extracts the lipids or other non-polar compounds from the aqueous phase in such assays, enabling direct counting of the samples after cocktail addition, since the label is preferentially taken up into the lipophilic cocktail.

MicroScint E cocktail has an absolute, unquenched tritium efficiency of approximately 50% when measured in a 24-well white polystyrene OptiPlate microplate.

#### MicroScint-O

MicroScint-O cocktail is used for counting non-polar organic samples such as hexane, heptane, ethyl acetate, etc., and for dried filters. It is particularly useful for organic samples produced from enzyme inhibition assays. MicroScint-O cocktail does not contain surfactants and is not miscible with water, so it is unsuitable for counting aqueous samples.

MicroScint-O cocktail has an absolute, unquenched tritium efficiency of approximately 58% when measured in a 24-well white polystyrene OptiPlate microplate.

# **MicroScint-PS**

MicroScint-PS cocktail, specifically formulated for polystyrene compatibility, is suitable for use with virtually any type of microplate and provides high counting stability with minimal change in count rate within a 24 hour period. It has almost identical sample handling capabilities to MicroScint-20 with respect to sample concentration and loading, but has a lower viscosity and is therefore easier and quicker to dispense.

MicroScint-PS cocktail has an absolute, unquenched tritium efficiency of approximately 48% when measured in a 24-well white polystyrene OptiPlate microplate.



MicroScint-20

Product	Product No.	Size
MicroScint-20	6013621	1 x 1 L
MicroScint-40	6013641	1 x 1 L
	6013647	4 x 2.5 L
MicroScint-E	6013661	1 x 1 L
MicroScint-O	6013611	1 x 1 L
MicroScint-PS	6013631	1 x 1 L

# Tissue Solubilizers

# Meltilex Solid Scintillators / Safer & Classical Tissue Solubilizers

# **Meltilex Solid Scintillators**

Meltilex® melt-on solid scintillator, for use with filtermat-harvested or dot-blotted samples, is an attractive alternative to traditional scintillation cocktails. Meltilex is especially well suited for use with plate counters. Simply place a sheet of Meltilex and a filtermat containing 96 samples together. Run these through a heat sealer or heat on a hot plate to melt. Sample preparation takes only one or two minutes per filtermat. Samples are fixed in position, ensuring complete elution into the cocktails. Stable counting conditions and long term storage guaranteed with no liquid waste. Metilex is versatile solution for use with glass fiber intro-cellulose or nylon filter mats.

Product	Product No.	Size
Meltilex A melt-on scintillator for Betaplate 1205	1205-441	100/pack
Meltilex B melt-on scintillator for Betaplate 1205	1205-442	75/pack
Meltilex B melt-on scintillator for Betaplate 1204	1204-442	75/pack
Meltilex A melt-on scintillator for MicroBeta 1450	1450-441	100/pack
Meltilex B melt-on scintillator for MicroBeta 1450	1450-442	75/pack

# **Tissue Solubilizers**

# Safer Tissue Solubilizers SOLVABLE

SOLVABLETM is an aqueous-based solubilizer that has an excellent capacity for the solubilization of wet tissue, aqueous tissue homogenates, proteins, nucleotides and other substances into a solution. With the exception of plant material, SOLVABLE

can replace the classical solubilizer, Soluene-350, for many applications, increasing safety in the laboratory due to its aqueous nature. SOLVABLE is compatible with ULTIMA Gold and has a superior mixing ratio with safer cocktails (2.5 mL sample in 10 mL cocktail).

Product	Product No.	Size
SOLVABLE	6NE9100	500 mL

# **Classical Tissue Solubilizers**

#### Soluene-350

Soluene-350® is a strong organic base formulated with toluene. It has an excellent capacity for the solubilization of wet tissue, aqueous tissue homogenates, proteins, nucleotides, plant material and other substances into a solution compatible with liquid scintillation cocktails. Compatible with Hionic-Fluor (4 mL sample in 10 mL cocktail) and Ultima Gold (1 mL sample in 10 mL cocktail).



# Hyamine™ Hydroxide 10-X

Hyamine™ Hydroxide 10-X is a quaternary ammonium hydroxide solution. It can be used to solubilize many biological tissues and as a ¹⁴CO₂ trapping agent. Solubilizes many biological tissues; resistant to chemiluminescence. Recommended ¹⁴CO₂ trapping agent for helicobacker pylori and urea "breath" test studies. Compatible with Emulsifier-Safe and Insta-gel Plus.

Product	Product No.	Size
Hyamine™ Hydroxide 10-X	6003005	500 mL
Hyamine™ Neutral	6003007	500 mL
Soluene-350	6003038	500 mL
Soluene-350 Neutral	6003039	500 mL

# **Specialty Chemicals**

# LIPIDEX/Autoradiography Enhancers

### **LIPIDEX**

LIPIDEX products are lipophilic, hydrophobic column packing materials for liquid chromatography used to separate a variety of steroids, prostaglandins, lipids and other natural products. LIPIDEX-1000 and LIPIDEX-5000 are alkoxylated derivatives of

Sephadex® LH-20. Approximately 10% of the hydroxy groups of LIPIDEX-1000 are substituted with long alkyl chains and in LIPIDEX-5000 the substitution is approximately 50%. The polarity of LIPIDEX is a function of this substitution; thus LIPIDEX-1000 is more polar than LIPIDEX-5000.

Product	Product No.	Size
LIPIDEX-1000	6008301	25 g
LIPIDEX-5000	6008303	25 g
	6008309	4x750 g

# **Autoradiography Enhancers**

# EN3HANCE Liquid Autoradiography Enhancer

- Greatly simplifies gel processing as compared to Bonner and Lasky's method: requires no dehydration, a short preparation time and overall processing time is reduced from 5 hours to 90 minutes.
- Can be used for both polyacrylamide and agarose gels: method of choice for agarose gels.
- Performs equivalent to PPO/DMSO for polyacrylamide gels, but eliminates gel distortion: unlike PPO/DMSO, does not shrink gel.
- Contains no DMSO

#### **EN<sup>3</sup>HANCE Spray Surface Autoradiography Enhancer**

- Designed for use with <sup>3</sup>H-, <sup>14</sup>C- and <sup>35</sup>S-labeled compounds isolated on hybridization membranes, TLC plates and similar solid supports.
- Significantly reduces exposure times and permits the detection of extremely low isotope levels.
- Non-reactive with x-ray film and most samples and supports.
- Eliminates mixing of liquids and spillage.
- · Not intended for use with tissue or gel fluorography.

# **ENLIGHTNING Rapid Autoradiography Enhancer**

- Safer alternative for gels.
- Involves a single-step process: requires no more than one-half hour to perform.
- Produces high-quality fluorograms: effective with polyacrylamide and mixed gels.
- Store at room temperature: long shelf life.
- Contains no DMSO, odorless.
- All products are shipped and stored at ambient temperature.

Product	Product No.	Size
EN³HANCE™ Autoradiography Enhancer	6NE9701	1 L
EN <sup>3</sup> HANCE Spray Surface Autoradiography Enhancer	6NE970C	2 oz. (59 mL)
		spray can
ENLIGHTNING™ Rapid Autoradiography Enhancer	6NE9741	1 L

# Specialty Chemicals Decontaminants & Cleaners

### **Decontaminants & Cleaners**

#### AbSolve Glassware Cleaner

- Easily and inexpensively removes serious R or DNA contamination (autoclaving does not destroy DNA). Simply soak plastic and glassware in a 2% solution for 30 minutes, rinse and use.
- Ideal for prewashing plastic tubes for PCR. AbSolve™ prevents DNA contamination of storage and reaction vessels from exogeneous sources.
- Use to clean glassware for electrophoresis. Glass plates rinse easily and AbSolve leaves no residue to interfere with gel polymerization or silver staining.
- Safe, non-abrasive AbSolve does not etch glass, contain strong acids, or emit toxic fumes.

# **COUNT-OFF Liquid Concentrate**

- Ideal, all-purpose decontaminant: safe, efficient and economical.
- Quickly and effectively cleans up even the most persistent leftovers: proven most effective cleanser for removing radioactive residues (<sup>3</sup>H, <sup>14</sup>C, <sup>32</sup>P and <sup>125</sup>I), stopcock and vacuum greases, lanolin and petroleum jelly, dried blood and serum, fatty and amino acids, protein complexes, and polymer films and other stubborn residues.
- Stable under extreme temperature fluctuations (-50 °C to 150 °C).
- Safer than strongly acidic cleaners, such as chromic acid: solutions will not produce toxic gases from substrates containing <sup>14</sup>C, <sup>131</sup>I, <sup>35</sup>S, or <sup>36</sup>CI.
- Easy to use: adjust concentration, soaking time and temperature as needed to speed up decontamination or for particularly stubborn substances such as dried blood.

# **COUNT-OFF Surface Cleaner (Trigger Spray)**

- Quickly and safely decontaminates small radioactive spills from benches, shields, and appliances: also efficiently cleans instrument housings, hood corners, centrifuge cups and heads, and LSC counter mechanisms.
- Traps and suspends radioactive particles in foam: makes clean-up easy and reduces the likelihood of spreading contamination to hands and clothing.
- Removes both ionic and non-polar radioactivity.
- Cleans-up stubborn grease, resins, blood and wax, even from rough surfaces.

#### Pico-Kleen N

Pico-Kleen N is a concentrated liquid detergent developed as an all-purpose cleaning agent and radioactive decontaminant. Pico-Kleen N is essentially neutral, in which mildness is combined with an outstanding surfactant formulation resulting in an effective cleaning action. Depending on the type of radioactive contaminated surface and isotopes, Pico-Kleen N will effectively remove the contamination when properly applied.

Product	Product No.	Size
AbSolve™ Glassware Cleaner	6NE9711	1 x 1 L
COUNT-OFF™ Liquid Concentrate	6NE9422	1 x 2.5 L
	6NE9427	4 x 2.5 L
COUNT-OFF Surface Cleaner (Trigger Spray)	6NE942T	6 x 22 oz. (650 mL) pump bottles
Pico-Kleen N	6013819	2 x 5 L

# **Liquid Scintillation Counting Vials**

# Glass Vials/Plastic Vials/Pico Pro Vial

PerkinElmer offers high quality glass and plastic vials. The best vial to choose is dependent on the type and volume of sample to be counted and the cocktail that will be used.

#### **Glass Vials**

Glass vials are manufactured from low potassium glass tubing. The tube diameter and the wall thickness are very closely controlled. The uniform wall thickness contributes to excellent counting reproducibility.

- Chemically inert: suitable for use with aggressive reagents and tissue solubilizers.
- Good visibility: to check sample/cocktail appearance.
- No solvent permeation: when classical LSC cocktails are used.

# **Choice of Caps**

- Foil-lined urea: best for airtight seal
- Poly-cone line: best for agressive reagents (alkali and oxidizer)
- Poly screw: basic plastic cap, no insert

# **Plastic Vials**

Plastic vials are injection (blow) molded to exacting specifications from virgin high-density (linear) polyethylene (HDPE). Caps are recessed to assure reliable loading and transferring in automatic sample changers without skipping or jamming. Since polyethylene vials are produced from petrochemicals, they contain no measurable background and are preferred for low activity counting applications.

- Lower background level than glass vials.
- Higher counting efficiency than glass vials.
- Combustible: easier waste disposal.
- No solvent permeation with safer, high-flash point cocktails such as the ULTIMA Gold and OptiPhase HiSafe families.



Glass and Plastic Vials

# **Miniature Vials**

Our miniature vials are uniquely designed for safer, more confident sample preparation. Our plastic vials are manufactured from high-density polyethylene (HDPE) and are available with patented "anti-static" treatment. Unique closure designs are used to ensure fast, easy and comfortable sample preparation.

# Pico Pro Vial - 4 mL

Our Pico Pro Vial™ is a 4 mL plastic scintillation vial uniquely suited for use in cell harvesting systems and general purpose LSC counting. A push-on/stay-on cap provides fast closure of vials.

For use in the trays of cell harvesting systems, the caps are connected in strings of six, with spacing corresponding to the 6 x 16 formats of the trays. After the glass fiber filters are completely dried, simply punch into Pico Pro Vials and add up to 4 mL scintillation cocktail, such as Ultima Gold. Lay a string of caps over a row of six vials, and press the caps onto the vials until a "click" is heard. The connections between the caps are automatically broken, and the remaining strings are folded upwards.

# **Specifications**

Height with cap: 60.8 mm.

■ Diameter: 14.2 mm.

■ Diameter of opening: 11.2 mm.

■ Diameter of cap: 14.0 mm.

■ Wall thickness: 1.1 mm.

■ Nominal volume: 4.0 mL.

Maximum volume: 4.5 mL.

■ Temperature resistance: up to 80 °C.

# Miniature Vials

# Pico Vials/Pony Vials/Polypropylene Vial for MicroBeta

## Pico Prias Vial - 6 mL

Our polyethylene Pico Prias Vial™ yields high counting efficiencies with 3–6 mL of LSC cocktail.

#### Specifications

■ Height with cap: 57.5 mm.

Diameter: 15.0 mm.

■ Diameter opening: 12.3 mm.

■ Diameter of cap: 16.2 mm.

■ Wall thickness: 1.3 mm.

Nominal volume: 6.0 mL.

Maximum volume: 6.5 mL.

#### Pico Prias Vials

# Temperature resistance: up to 80 °C.

# Pico 'Hang-In' Vial - 6 mL

Our Pico 'Hang-In' Vial<sup>TM</sup> is a miniature polyethylene scintillation vial for use in standard 20 mL liquid scintillation analyzers. The unique self-centering design allows a 20 mL LSC vial to be used as a carrier. This system makes it possible to use large and small vials (small vial contained in a large vial) intermixed in one rack.

### Specifications

■ Height with cap: 57.5 mm.

■ Diameter: 15.0 mm.

■ Diameter of opening: 12.3 mm.

■ Diameter of cap: 18.9 mm.

■ Wall thickness: 1.3 mm.

Nominal volume: 6.0 mL.

Maximum volume: 6.5 mL.

Temperature resistance: up to 80 °C.

# Pico Glass Vial - 7 mL

Our Pico Glass Vial<sup>TM</sup> is a low background, borosilicate glass vial. High counting efficiencies compared to standard size glass vials are obtained with as little as 3 mL of LSC cocktail. These vials feature low background and are nonpermeable to aromatic hydrocarbons.

#### Specifications

■ Height with cap: 57.3 mm.

■ Diameter: 16.7 mm.

■ Diameter of opening: 8.3 mm.

Diameter of cap: 15.3 mm.

■ Wall thickness: 0.9 mm.

■ Nominal volume: 7.0 mL.

■ Maximum volume: 8.0 mL.

■ Temperature resistance: >100 °C.



Pico Glass Vials

# Pony Vial - 6 mL

Our Pony Vial™ is a miniature polyethylene vial with a unique (push-on/twist-off cap) closure system not available on any other screw cap designs.

- Push-on cap provides rapid closure: for routine analysis where many vials have to be handled, push-cap vials are real time savers.
- Twist-off cap for safer reopening; the Pony Vial is compatible with all small vial counters and PerkinElmer Varisette<sup>™</sup> sample changers.

#### Specifications

■ Height with cap: 56.6 mm.

■ Diameter: 16.0 mm.

Diameter of opening: 12.5 mm.

■ Diameter of cap: 15.9 mm.

■ Wall thickness: 1.3 mm.

■ Nominal volume: 5.5 mL.

Maximum volume: 6.0 mL.

■ Temperature resistance: up to 80 °C.



Pony Vials

# Pony 'Hang-In' Vial – 6 mL

Our Pony 'Hang-In' Vial is a miniature polyethylene scintillation vial with all the features of the Pony Vial, but with a different cap that allows it to 'hang' into a standard 20 mL LSC vial as a carrier.

#### Specifications

■ Height with cap: 56.6 mm.

■ Diameter: 16.0 mm.

■ Diameter of opening: 12.5 mm.

■ Diameter of cap: 19.0 mm.

■ Wall thickness: 1.3 mm.

Nominal volume: 5.5 mL.

■ Maximum volume: 6.0 mL.

■ Temperature resistance: up to 80 °C.

# Polypropylene Vial for MicroBeta – 4 mL

Polypropylene Vial and Cap for MicroBeta are 45 mm in height and hold 4.0 mL of LSC cocktail. In MicroBeta TriLux, they are counted in vertical position using cassette 1450-117.

# Miniature Vials

# Miniature Vials Ordering Guide

Product	Product No. Description
Pico Pro Vial - 4 mL	6000252 2,000/case Economically packed. Caps packed separately.
	6000253 2,000/case Same as above, with exclusive Anti-Static treatment.
Pico Prias Vial - 6 mL	6000192 2,000/case Economically packed. Caps packed separately.
	6000193 2,000/case Same as above, with exclusive Anti-Static treatment.
Pico 'Hang-In' Vial - 6 mL	6000186 2,000/case Economically packed. Caps packed separately.
	6000187 2,000/case Same as above, with exclusive Anti-Static treatment.
Pico Glass Vial - 7 mL	6000167 1,000/case Shrink-wrapped in 5 partitioned trays of 200 vials each. Foil-lined, white urea screw caps packed separately.
Pony Vial - 6 mL	6000592 1,000/case Shrink-wrapped in 5 partitioned trays of 200 vials each. Caps packed separately.
	6000292 2,000/case Economically packed. Caps packed separately.
	6000293 2,000/case Same as above, with exclusive Anti-Static treatment.
Pony 'Hang-In' Vial - 6 mL	6000286 2,000/case Economically packed. Caps packed separately.
	6000287 2,000/case Same as above, with exclusive Anti-Static treatment.
Polypropylene Vial for MicroBeta - 4 mL	1200-421 3,000/case Economically packed. Caps packed separately.
Pico Glass Vial Caps	6000179 1,000/case White urea screw caps with foil liner.

# Mid-Sized Vials Hinge Cap Vial/Midi-Vial/Maxi-Vial

# Hinge Cap Vial – 8 mL

Our 8 mL capacity Hinge Cap Vial<sup>TM</sup>, made from high-density polyethylene (HDPE), is a revolution in sample preparation for liquid scintillation counting. Simply prepare your samples and close the cap; the integral hinge fits flush with the vial for snag-free counting in miniature vial cassettes.

#### Fast, Easy and Efficient Sample Preparation

- 33% more capacity than 6 mL miniature vials: allows miniaturization from 20 mL size vials when used with high sample capacity cocktails such as ULTIMA Gold XR.
- Enables reduced cocktail consumption: reducing the amount of waste produced and waste disposal costs.
- Pre-labeling of attached cap: avoids potential sample mix-ups for GLP compliance.
- Fits miniature vial cassettes.

#### Specifications

Height with cap: 59.0 mm.

Diameter: 17.5 mm.

Diameter of opening: 14.0 mm.

■ Diameter of cap: 16.7 mm.

■ Wall thickness: 1.3 mm.

■ Nominal volume: 8.0 mL.

■ Maximum volume: 9.0 mL.

■ Temperature resistance: up to 80 °C.



# Midi-Vial - 8 mL

Our Midi-Vial<sup>TM</sup> is an 8 mL HDPE vial, providing 33% more sample capacity than miniature vials. This allows miniaturization from 20 mL size vials when used in combination with high sample capacity cocktails such as ULTIMA Gold XR. It features the same unique push-on/twist-off closure system as Pony Vials.

#### Specifications

■ Height with cap: 62.0 mm.

Diameter: 17.5 mm.

■ Diameter of opening: 14.0 mm.

Diameter of cap: 17.4 mm.Wall thickness: 1.9 mm.

Nominal volume: 8.0 mL.Maximum volume: 8.0 mL.

■ Temperature resistance: up to 80 °C.

# Maxi-Vial - 18 mL

The large opening of our Maxi-Vial™ promotes easy sample loading of filters and other sample types. It features very low "classical" solvent diffusion due to its thick 2 mm walls.

### Specifications

■ Height with cap: 61.0 mm.

Diameter: 26.5 mm.

Diameter of opening: 22.6 mm.

■ Diameter of cap: 26.9 mm.

Wall thickness: 2 mm.

Nominal volume: 18.0 mL.

■ Maximum volume: 20.0 mL.

■ Temperature resistance: up to 80 °C.

Product	Product No.	Description
Hinge Cap Vial - 8 mL	6000480	2,000/case Economically packed. Caps packed separately.
	6000488	500/case Shrink-wrapped in 5 partitioned trays of 100 vials each.
Midi-Vial - 8 mL	6000288	2,000/case Economically packed. Caps packed separately.
	6000289	2,000/case Same as above, with exclusive Anti-Static treatment.
Maxi-Vial - 18 mL	6000201	1,000/case Economically packed. Caps packed separately.
	6000203	1,000/case Same as above, with exclusive Anti-Static treatment.

# Standard Vials

# Super Polyethylene/Low Diffusion/High Performance Glass/ Econo Glass/Oximate Vials



# Super Polyethylene Vial with Glass Vial Thread – 20 mL

Our Super Polyethylene Vial<sup>TM</sup> has excellent mechanical strength and a seamless bottom and walls. The glass vial thread enables use of caps for 20 mL glass vials.

#### Specifications

- Height with cap: 60.8 mm.
- Diameter: 27.0 mm.
- Diameter of opening: 17.5 mm.
- Diameter of cap: 24.9 mm.
- Wall thickness: 1 mm.
- Nominal volume: 20.0 mL.
- Maximum volume: 24.0 mL.
- Temperature resistance: up to 80 °C.

# Super Polyethylene Vial with Quick Closure -20 mL

This Super Polyethylene Vial features a polyethylene quick closure screw cap with a smooth grip.

#### Specifications

- Height with cap: 60.8 mm.
- Diameter: 27.0 mm.
- Diameter of opening: 17.5 mm.
- Diameter of cap: 24.7 mm.
- Wall thickness: 1 mm.
- Nominal volume: 20.0 mL.
- Maximum volume: 24.0 mL.
- Temperature resistance: up to 80 °C.

# **Low Diffusion Polyethylene Vial – 20 mL**

Our Low Diffusion Polyethylene Vial carries a micron thin Teflon®-type coating on the inside surface, reducing the diffusion of classical type solvents by a factor of 10–20 times. The cap is lined with aluminum foil as a barrier. This vial was developed for long-term low-level measurements as a cost effective alternative to very expensive Teflon counting vials. They are 100% anti-static and provide high counting efficiency and low background.

### Specifications

- Height with cap: 60.8 mm.
- Diameter: 27.0 mm.
- Diameter of opening: 17.5 mm.
- Diameter of cap: 24.9 mm.
- Wall thickness: 1 mm.
- Nominal volume: 20.0 mL.
- Maximum volume: 24.0 mL.
- Temperature resistance: up to 80 °C.

# High Performance Glass Vial - 20 mL

Our High Performance Glass Vial™ is made from specially selected low potassium borosilicate glass and provides high UV transmission (≥90%). The controlled low and stable background assures batch-to-batch homogeneity. They are supplied with a white cap with a good writing surface in dust-free tray packaging.

#### Specifications

- Height with cap: 60.5 mm.
- Diameter: 27.3 mm.
- Diameter of opening: 16.2 mm.
- Diameter of cap: 24.9 mm.
- Wall thickness: 0.9 mm.
- Nominal volume: 20.0 mL.
- Maximum volume: 24.0 mL.
- Temperature resistance: >100 °C.

# Econo Glass Vial - 20 mL

Our Econo Glass vial is made from standard borosilicate glass, specially selected for acceptable background. They are economical and provide excellent counting performance.

#### Specifications

- Height with cap: 60 mm.
- Diameter: 27.3 mm.
- Diameter of opening: 16.2 mm.
- Diameter of cap: 24.9 mm.
- Wall thickness: 0.9 mm.
- Nominal volume: 20.0 mL.
- Maximum volume: 22.0 mL.Temperature resistance: up to 80 °C.

### Oximate Vial - 20 mL

Our Oximate Vial™ is made of polyethylene or glass and features a special cap design for use in PerkinElmer's Sample Oxidizer.

#### Specifications

- Height with cap: 60.8 mm.
- Diameter: 27.3 mm.
- Diameter of opening: 16.2 mm.
- Diameter of cap: 24.9 mm.
- Wall thickness: 0.9 mm.
- Nominal volume: 20.0 mL.
- Maximum volume: 24.0 mL.
- Temperature resistance: >100 °C.

# Standard Vials Standard Vials Ordering Guide

Product	Product No.	Description
Super Polyethylene Vial with Glass Vial Thread - 20 mL	6001085	500/case Packed in 5 partitioned trays of 100 vials each with foil-lined urea screw caps on.
	6001087	1,000/case Economically packed. Foil-lined urea screw caps packed separately.
Super Polyethylene Vial with Quick Closure - 20 mL	6008117	1,000/case Economically packed. Caps packed separately.
	6008118	1,000/case Same as above, with exclusive Anti-Static treatment.
	6000375	500/case Shrink-wrapped in 5 partitioned trays of 100 vials each. Caps packed separately.
	6001075	500/case Packed in 5 partitioned trays of 100 vials each with caps on.
Low Diffusion Polyethylene Vial - 20 mL	6000477	100/case Shrink-wrapped in partitioned tray with caps on, with exclusive Anti-Static treatment.
High Performance Glass Vial - 20 mL	6001003	500/case Packed in 5 partitioned trays of 100 vials each with caps on. Special design screw cap for use in automated handling.
	6001015	500/case Packed in 5 partitioned trays of 100 vials each with foil-lined screw caps on.
	6001050	500/case Packed in 5 partitioned trays of 100 vials each. Poly-Cone lined urea screw caps packed separately.
	6000128	500/case Shrink-wrapped in 10 partitioned trays of 50 vials each. Foil-lined urea screw caps packed separately.
	6000129	500/case Shrink-wrapped in 5 partitioned trays of 100 vials each. Foil-lined urea screw caps packed separately.
	6000134	500/case Shrink-wrapped in 10 partitioned trays of 50 vials each. Poly-Cone lined urea screw caps packed separately.
	6000135	500/case Shrink-wrapped in 5 partitioned trays of 100 vials each. Poly-Cone lined urea screw caps packed separately.
Econo Glass Vial - 20 mL	6000096	500/case Shrink-wrapped in 4 partitioned trays of 125 vials each. Foil-lined urea screw caps packed separately.
	6000097	500/case Shrink-wrapped in 4 partitioned trays of 125 vials each. Poly screw caps packed separately.
	6000098	500/case Shrink-wrapped in 4 partitioned trays of 125 vials each. Poly-Cone lined urea screw caps packed separately.

# **QUANTULUS** Vials

# Standard Vials Ordering Guide/Teflon-Copper Vials/Other QUANTULUS Vials

Product	Product No.	Description
Oximate Vial - 20 mL	6001095	500/case Polyethylene vials with glass vial thread. Packed in 5 partitioned trays of 100 vials each with foil-lined urea screw caps on. Special design screw cap for automated handling.
	6001009	500/case Glass vials. Packed in 5 partitioned trays of 100 vials each with foil-lined urea screw caps on. Special design screw cap for automated handling.
Glass Vial Caps	6001025	1,000/case Foil-lined urea screw caps.
	6001027	1,000/case Poly-Cone lined urea screw caps.
	6000249	1,000/case Poly screw caps for glass vials.
	6000250	1,000/case Foil-lined urea screw caps. Special design for automated handling.

# **QUANTULUS Vials**

# **Teflon-Copper Vials**

Our Teflon-Copper vials give the best performance and are ideal particularly for low level <sup>14</sup>C dating where benzene is used. The Teflon-Copper vials can be used with PerkinElmer's QUANTULUS Ultra Low Level Liquid Scintillation Spectrometer.

Product	Product No.	Description
Teflon-Copper Vials - 3 mL	1220-500	10/package
Teflon-Copper Vials - 7 mL	1220-501	10/package
Teflon-Copper Vials - 15 mL	1220-502	10/package
Teflon-Copper Vials - 20 mL	1220-503	10/package

# **Other QUANTULUS Vials**

Product	Product No.	Description
Plastic Vials - 20 mL	1200-420	100/package Caps included.

# LSC Standards & Sources

# Internal LSC Standards/Unquenched LSC Standards

# **Internal LSC Standards**

- Determination of counting efficiency by internal standardization is the original analytical technique, to which other efficiency determination methods are referred.
- Certified internal LSC standards are calibrated in DPM per unit weight rather than DPM per unit volume.
- The advantage of calibrating in DPM per gram is that the calibration remains constant with changes in temperature.

Product	Product No.	Size
<sup>3</sup> H Water, ~2.5 x 10 <sup>6</sup> DPM/g	6004052	10 mL
<sup>3</sup> H Toluene, ~2.5 x 10 <sup>6</sup> DPM/g	6004051	10 mL
<sup>14</sup> C Toluene, ~5 x 10⁵ DPM/g	6004062	10 mL

# **Unquenched LSC Standards**

- Used to optimize liquid scintillation counter settings and to check long term stability of the instrument.
- Each standard contains PPO/Dimethyl POPOP in scintillation grade toluene, is argon purged and is flame sealed in a borosilicate ampoule.
- Each standard has a cap designed for high reflectivity and ease of handling.
- Available in two sizes: standard size for use with instruments using standard 20 mL vials and Pico standards for small vial systems.
- Both conventional size standards and Pico standards are available.

Product	Product No.
Conventional size standards (20 mL vial)	
Background standard	6008511
³H standard, ~2.5 x 10⁵ DPM	6008512
<sup>14</sup> C standard, ~1 x 10 <sup>5</sup> DPM	6008513
Standard set (one of each of the above): unquenched standard	6008500
Conventional size standards for low level counting (20 mL vial)	
Background standard	6018913
<sup>3</sup> H standard, 8 x 10 <sup>4</sup> DPM	6018911
<sup>14</sup> C standard, 4 x 10 <sup>4</sup> DPM	6018912
Standard set (one of each of the above): unquenched TC standard	6018914
Pico standards (small 7 mL vial)	
Background standard	6008411
<sup>3</sup> H standard, ~2.5 x 10 <sup>5</sup> DPM	6008412
<sup>14</sup> C standard, ~1 x 10 <sup>5</sup> DPM	6008413
Standard set (one of each of the above)	6008400

**Note:**  $10^5$  DPM = 1.67kBq = 0.045 uCi

# LSC Standards & Sources

# Quenched LSC Standards/Extended Range Quenched Standards

# **Quenched LSC Standards**

- Used to establish efficiency correlation curves applicable to a wide variety of scintillation cocktails and quenching agents.
- Supplied in sets of ten, each containing the same amount of radioactivity, but with progressively higher levels of quench.
- Prepared in PPO/Dimethyl POPOP/toluene, argon purged and flame-sealed in borosilicate glass ampoules. The quenching agent is nitromethane.
- Both conventional size standards and Pico standards are available.

Product	Product No.
Conventional size standards (20 mL vial)	
<sup>3</sup> H standard (set of ten), ~2.5 x 10 <sup>5</sup> DPM/vial	6008501
<sup>14</sup> C standard (set of ten), ~1 x 10 <sup>5</sup> DPM/vial	6008502
Combination set (one each of the two sets above)	6008503
Conventional size standards for low level counting (20 mL vial)	
$^{3}$ H standard (set of ten), $\sim$ 3 x 10 $^{4}$ DPM/vial	6018917
$^{14}$ C standard (set of ten), $\sim$ 2 x 10 $^{4}$ DPM/vial	6018918
Combination set (one each of the two sets above)	6018919
Pico standards (small 7 mL vial)	
$^{3}$ H standard (set of ten), $\sim$ 2.5 x 10 $^{5}$ DPM/vial	6008401
<sup>14</sup> C standard (set of ten), ~1 x 10 <sup>5</sup> DPM/vial	6008402
Combination set (one each of the two sets above)	6008403

# **Extended Range Quenched Standards**

- These standards are recommended to establish quench correlation curves for more heavily quenched samples.
- The improved efficiency correlation contributes to higher accuracy in the measurements of samples which may be difficult to count correctly.
- This series only differs in composition from the standards above by the concentration of the quenching agent used.
- Both conventional size standards and Pico standards are available.

Product	Product No.
Conventional size standards (20 mL vial)	
$^{3}$ H standard (set of ten), $\sim$ 2.5 x 10 $^{5}$ DPM/vial	6018594
$^{14}\text{C}$ standard (set of ten), ~1 x 10 $^{5}$ DPM/vial	6018595
Combination set (one each of the two sets above)	6018596
Pico standards (small 7 mL vial)	
$^{3}$ H standard (set of ten), $\sim 2.5 \text{ x } 10^{5} \text{ DPM/vial}$	6018551
$^{14}\text{C}$ standard (set of ten), $\sim 1 \times 10^5  \text{DPM/vial}$	6018552
Combination set (one each of the two sets above)	6018553

Note:  $10^5$  DPM = 1.67kBq = 0.045 uCi

# LSC Standards & Sources

# **ULTIMA Gold Quenched Standards/Spec-Chec/Gamma Sources**

# **ULTIMA Gold Quenched Standards**

- ULTIMA Gold quenched <sup>3</sup>H and <sup>14</sup>C standards ensure accurate correction of variable quench when using liquid scintillation cocktails from the ULTIMA Gold Family of safer scintillation cocktails.
- Supplied in flame-sealed, low potassium glass vials.
- Both conventional size standards and small vial Pico standards are available.

Product	Product No.
Conventional size standards (20 mL vial)	
$^{3}$ H standard (set of ten), $\sim$ 2.5 x 10 $^{5}$ DPM/vial	6007600
<sup>14</sup> C standard (set of ten), ~1 x 10 <sup>5</sup> DPM/vial	6007601
Combination set (one each of the two sets above)	6007602
Conventional size standards for low level counting (20 mL vial)	
<sup>3</sup> H standard (set of eight), ~3 x 10 <sup>4</sup> DPM/vial	6010704
<sup>14</sup> C standard (set of eight), ~2 x 10 <sup>4</sup> DPM/vial	6010705
Combination set (one each of the two sets above)	6010706
Pico standards (small 7 mL vial)	
<sup>3</sup> H standard (set of ten), ~2.5 x 10 <sup>5</sup> DPM/vial	6007603
<sup>14</sup> C standard (set of ten), ~1 x 10 <sup>5</sup> DPM/vial	6007604
Combination set (one each of the two sets above)	6007605

# **Spec-Chec**

Reagents for testing the PerkinElmer Sample Oxidizer performance (recovery, spillover and memory).

Product	Product No.	Size
Nonradioactive Spec-Chec	6002130	50 mL
High Activity <sup>3</sup> H Spec-Chec, ~2 x 106 DPM/mL	6002134	25 mL
High Activity <sup>14</sup> C Spec-Chec, ~8 x 105 DPM/mL	6002135	25 mL
Low Activity <sup>3</sup> H Spec-Chec, ~5 x 104 DPM/mL	6002136	25 mL
Low Activity <sup>14</sup> C Spec-Chec, ~5 x 104 DPM/mL	6002137	25 mL
High Activity Spec-Chec Kit	6002138	
Low Activity Spec-Chec Kit	6002139	

# **Gamma Sources**

Calibration sources: 12 x 75 mm for linked belt or cassette sample changers.

Product	Product No.
Cesium-137 source, ~0.25 uCi (9.25 kBq), 1 piece	6018503
lodine-129 source, ~0.05 uCi (1.85 kBq), 1 piece	6018504

Note: 10<sup>5</sup> DPM = 1.67kBq = 0.045 uCi

# **Counting Accessories**

# Matched Certified Sources/Counting Accessories

# **Matched Certified Sources**

Pico-Calibrators are matched sets of radionuclide (gamma) point sources that are sealed with epoxy in 12 x 75 mm polypropylene tubes. Activity is verified using a NaI detector for which the efficiency has been established using NIST traceable standards.

Each source is labeled to identify the radionuclide, activity (in both microCuries and DPM), assay date and lot number. Standards are made in groups which are matched by counts to ensure +/- 1% source matching. Pico-Calibrators are typically used for verifying detector counting efficiency and normalizing multidetector gamma counters. The calibrators are supplied with a Pico-Calibrator log book that contains technical information as well as a template for quality assurance.

The last two digits of the catalog number indicate the isotope. Cobalt-57 and lodine-125 contain 2 x 105 DPM; Chromium-51 contains 2 x 10<sup>6</sup> DPM and lodine-129 contains 110,000 DPM.

Product	Size (Set)	Product No.	Product No.	Product No.	Product No.
		lodine-125	lodine-129	Cobalt-57	Chromium-51
Pico-Calibrator™	1	5080125	5080129	5080157	5080151
12 x 75 mm	2	5080225	5080229		
	5	5080525	5080529	5080557	5080551
	10	5081025	5081029	5081057	5081051
	12	5081225	_	_	_
	20	5082025	5082029	5082057	

# **Counting Accessories**

A partial list of labware and accessories for liquid scintillation counting follows. For help choosing the labware and accessories best suited for your liquid scintillation counter and your specific applications, please consult with your local PerkinElmer Sales Representative.

Product	Product No.	Description
Cardboard Vial Trays for 20 mL vials	6008161	10/set For 50 vials (5 x 10) Solid, corrugated cardboard trays with separation inserts. Numbered rows for easy sample identification.
	6008162	10/set For 100 vials (10 x 10) Solid, corrugated cardboard trays with separation inserts. Numbered rows for easy sample identification.
Cardboard Vial Trays for 6 mL vials	6008163	10/set For 200 vials (10 x 20) Solid, corrugated cardboard trays with separation inserts. Numbered rows for easy sample identification.
Rack-System Carrier Tray	6008150	1 each Holds vials during sample preparation.
Insert for Rack-System for 20 mL vials	6008151	1 each Capacity: 32 vials (4 x 8)
Servo-Tray Reusable Vial Carriers	6008129	3/pkg Capacity: 50 vials (20 mL) Inert to cocktails, easily decontaminated and autoclavable.

# Counting Accessories Counting Accessories/Dispensette

Product	Product No.	Description
Tri-Carb Varisette Cassette	7000749	10/pkg For 4 mL vials
	7000669	10/pkg For 6, 7 and 8 mL vials
	7000668	10/pkg For 20 mL vials
Tri-Carb Varisette Cassette ID labels	7000686	1 set
Vented Pico Holder for miniature vials	6013400	100/case Holder for counting all PerkinElmer miniature vials in conventional LSC systems.
Vented Microtube Holder	6013401	100/case 6 mm. Holds 0.5 mL mi or Cerenkov counting.
	6013402	100/case 11 mm. Holds 1.5 mL microfuge tubes for conventional or Cerenkov counting

# **Dispensette**

The Dispensette® III permits rapid, repeatable dispensing of exact quantities of reagents. It has a floating piston for seal-free dispensing, an adjustable dispensing angle for optimum readability and safety, plus a telescoping filling tube that can be easily adjusted to many different bottle sizes. A unique SafetyPrime® valve (Product No. 6005736), which avoids waste by recirculating reagent while priming the dispenser, is also available.

- High accuracy: 0.5% with 0.1% coefficient of variation
- Ideal for high viscosity fluids.
- Autoclavable without disassembling
- Integrated safety discharge system
- Unique SafetyPrime-1 pt valve (optional)

Dispensettes are delivered complete with a 30/32 mm and 32/45 mm adapter, 250–480 mm long FEP filling tube and discharge tube. All Dispensettes are specifically adapted for dispensing liquids of higher viscosity and fit all of the container sizes.



Product	Product No.
Dispensette, 0.2–2.0 mL	6005361
Dispensette, 0.5–5.0 mL	6005360
Dispensette, 1.0–10.0 mL	6005362
Dispensette III, with SafetyPrime® Valve, 1.0–10.0 mL	6005375
SafetyPrime-1 pt Venting Valve	6005376

# Α

# GPCR Membrane Guide

Receptor type	Subtype	G-protein coupling	Species		Binding	GTPγS	Cat. No.	Complementary radioligands	Pharmacological actio	
5-Hydroxytryptamine	5-HT <sub>1A</sub>	$G_{\rm f}/G_{_{\rm 0}}$	Human	CHO-K1	Χ		6110501400UA	8-Hydroxy-DPAT, [propyl-2,3-ring-1,2,3-3H]-	5-HT <sub>1A</sub> agonist	NET929
				HEK293 EBNA	X		RBHS1AM400UA	MPPF, [methyl- <sup>3</sup> H]-	5-HT <sub>1A</sub> antagonist	NET110
								Lysergic acid diethylamide, [N-methyl- <sup>3</sup> H]-	agonist	NET638
								Lysergic acid diethylamide, 2-[1251]iodo-(+)-, ([1251]-LSD)	agonist	NEX199
								Hydroxytryptamine creatinine sulfate, 5-[1,2-3H(N)]-	endogenous	NET498
								5-Carboxamidotryptamine, [1,2-3H]-	agonist	NET1071
								WAY100635 [METHOXY-3H]	antagonist	NET1164
	5-HT <sub>2A</sub>	G <sub>q</sub> /G <sub>11</sub>	Human	CHO-K1	χ		ES-313-M400UA	Ketanserin hydrochloride, [ethylene-3H]-, (R41 468)	5-HT, antagonist	NET791
	211	4						DOI, [125]-(±)-	5-HT, agonist	NEX255
								Spiperone, [benzene ring-3H]-, (Spiroperidol)	5-HT, antagonist	NET565
								Lysergic acid diethylamide, [N-methyl-3H]-	agonist	NET638
								Lysergic acid diethylamide, 2-[1251]iodo-(+)-, ([1251]-LSD)	agonist	NEX199
								5-Carboxamidotryptamine, [1,2-3H]-	5	NET1071
								Hydroxytryptamine creatinine sulfate, 5-[1,2-3H(N)]-	agonist endogenous	NET498
		CIC	Lluman	CUO V1	Х		EC 214 MADDIIA			
	5-HT <sub>28</sub>	$G_q/G_{11}$	Human	CHO-K1	۸		ES-314-M400UA	Ketanserin hydrochloride, [ethylene- <sup>3</sup> H]-, (R41 468) DOI, [ <sup>125</sup> I]-(±)-	5-HT <sub>2</sub> antagonist	NET791 NEX255
									5-HT <sub>2</sub> agonist	
								Spiperone, [benzene ring-³H]-, (Spiroperidol)	5-HT <sub>2</sub> antagonist	NET565
								Lysergic acid diethylamide, [N-methyl- <sup>3</sup> H]-	agonist	NET638
								5-Carboxamidotryptamine, [1,2-3H]-	agonist	NET1071
								Lysergic acid diethylamide, 2-[1251]iodo-(+)-, ([1251]-LSD)	agonist	NEX199
								Hydroxytryptamine creatinine sulfate, 5-[1,2-3H(N)]-	endogenous	NET498
								5-Hydroxy tryptamine, [3H]	endogenous	NET1167
	5-HT <sub>2C</sub>	$G_0/G_{11}$	Human	HEK293	Χ		6110548400UA	Ketanserin hydrochloride, [ethylene-3H]-, (R41 468)	5-HT <sub>2</sub> antagonist	NET791
	non edited	isoform		1321N1	Χ		ES-318-M400UA	DOI, [1251]-(±)-	5-HT, agonist	NEX255
								Spiperone, [benzene ring-3H]-, (Spiroperidol)	5-HT, antagonist	NET565
								Lysergic acid diethylamide, [N-methyl- <sup>3</sup> H]-	agonist	NET638
	5-HT <sub>2C</sub>	G <sub>o</sub> /G <sub>11</sub>	Human	CHO-K1	χ		ES-315-M400UA	Lysergic acid diethylamide, 2-[1251]iodo-(+)-, ([1251]-LSD)	agonist	NEX199
	edited isofo	,						Hydroxytryptamine creatinine sulfate, 5-[1,2-3H(N)]-	endogenous	NET498
								5-Carboxamidotryptamine, [1,2-3H]-	agonist	NET1071
	5-HT <sub>5A</sub>	G/G <sub>o</sub>	Human	CHO-K1	χ		RBHS5AM400UA	Lysergic acid diethylamide, [N-methyl-3H]-	agonist	NET638
	311			CHO-K1	Χ		ES-401-M400UA	Lysergic acid diethylamide, 2-[1251]iodo-(+)-, ([1251]-LSD)	agonist	NEX199
								Hydroxytryptamine creatinine sulfate, 5-[1,2-3H(N)]-	endogenous	NET498
								5-Carboxamidotryptamine, [1,2-3H]-	agonist	NET1071
	5-HT <sub>6</sub>	G <sub>s</sub>	Human	CHO-K1	Χ		ES-316-M400UA	Lysergic acid diethylamide, [N-methyl- <sup>3</sup> H]-	agonist	NET638
	ь	S		HEK293	Χ		RBHS6M400UA	Lysergic acid diethylamide, 2-[1251]iodo-(+)-, ([1251]-LSD)	agonist	NEX199
			Rat	HEK293	Χ		RBRS6M400UA	Hydroxytryptamine creatinine sulfate, 5-[1,2-3H(N)]-	endogenous	NET498
			nut	TILIZIJ	,		NDNSOWIFOOOA	5-Carboxamidotryptamine, [1,2-3H]-	agonist	NET1071
								SB258585, [ <sup>125</sup> I]-	antagonist	NEX424
	E UT	<u> </u>	Lluman	CUO V1	v		6110E12400HA			
	5-HT <sub>7</sub>	$G_{_{S}}$	Human	CHO-K1	X		6110512400UA RBRS7M400UA	Lysergic acid diethylamide, [N-methyl- <sup>3</sup> H]-	agonist	NET638
			Rat	HEK293	Χ		NDN37IVI4UUUA	Lysergic acid diethylamide, 2-[1251]iodo-(+)-, ([1251]-LSD)	agonist	NEX199
								5-Carboxamidotryptamine, [1,2-3H]- Hydroxytryptamine creatinine sulfate, 5-[1,2-3H(N)]-	agonist endogenous	NET1071 NET498
Acatulcholin a /Marrow 1	a) M	CIC	Циран	CUO V1	V		DDULATAAAAA			
Acetylcholin e (Muscarini	L) IVI <sub>1</sub>	$G_q/G_{11}$	Human	CHO-K1	Χ		RBHM1M400UA	Scopolamine methyl chloride, [N-methyl-3H]-	M <sub>1</sub> -M <sub>5</sub> antagonist	NET636
								Acetylcholine iodide, [acetyl-³H]-	endogenous	NET113
								Quinuclidinyl benzilate, L-[benzilic-4,4'-3H]-	M <sub>1</sub> -M <sub>5</sub> antagonist	NET656
								Oxotremorine-M acetate, [methyl-³H]-	M <sub>1</sub> -M <sub>5</sub> agonist	NET671
								Pirenzepine, [N-methyl-³H]-	M <sub>1</sub> antagonist	NET780
								4-DAMP, [N-methyl- <sup>3</sup> H]-	M <sub>1</sub> , M <sub>3</sub> antagonist	NET1040
	$M_2$	$G_{i}/G_{o}$	Human	CHO-K1	Χ		RBHM2M400UA	Scopolamine methyl chloride, [N-methyl- <sup>3</sup> H]-	M <sub>1</sub> -M <sub>5</sub> antagonist	NET636
								Acetylcholine iodide, [acetyl-3H]-	endogenous	NET113
								Quinuclidinyl benzilate, L-[benzilic-4,4'-3H]-	M <sub>1</sub> -M <sub>5</sub> antagonist	NET656
								Oxotremorine-M acetate, [methyl-3H]-	M <sub>1</sub> -M <sub>5</sub> agonist	NET671

# Ac - Ad

Receptor type	Subtype	G-protein coupling	Species	Host cell	Binding	GTPγS	Cat. No.	Complementary radioligands	Pharmacological action	Cat. No.
Acetylcholine (Muscarinic)	$M_3$	$G_q/G_{11}$	Human	CHO-K1	Χ		RBHM3M400UA	Scopolamine methyl chloride, [N-methyl- <sup>3</sup> H]-	M <sub>1</sub> -M <sub>5</sub> antagonist	NET636
								Acetylcholine iodide, [acetyl- <sup>3</sup> H]-	endogenous	NET113
								Quinuclidinyl benzilate, L-[benzilic-4,4'-3H]-	M <sub>1</sub> -M <sub>5</sub> antagonist	NET656
								Oxotremorine-M acetate, [methyl- <sup>3</sup> H]-	M <sub>1</sub> -M <sub>5</sub> agonist	NET671
								4-DAMP, [N-methyl- <sup>3</sup> H]-	M <sub>1</sub> , M <sub>3</sub> antagonist	NET1040
	$M_4$	G/G	Human	CHO-K1	Χ		RBHM4M400UA	Scopolamine methyl chloride, [N-methyl- <sup>3</sup> H]-	M <sub>1</sub> -M <sub>5</sub> antagonist	NET636
								Acetylcholine iodide, [acetyl- <sup>3</sup> H]-	endogenous	NET113
								Quinuclidinyl benzilate, L-[benzilic-4,4'-3H]-	M <sub>1</sub> -M <sub>5</sub> antagonist	NET656
								Oxotremorine-M acetate, [methyl- <sup>3</sup> H]-	M <sub>1</sub> -M <sub>5</sub> agonist	NET671
	$\mathrm{M}_{\mathrm{s}}$	$G_q/G_{11}$	Human	CHO-K1	Х		RBHM5M400UA	Scopolamine methyl chloride, [N-methyl- <sup>3</sup> H]-	M <sub>1</sub> -M <sub>5</sub> antagonist	NET636
								Acetylcholine iodide, [acetyl- <sup>3</sup> H]-	endogenous	NET113
								Quinuclidinyl benzilate, L-[benzilic-4,4'-3H]-	M <sub>1</sub> -M <sub>5</sub> antagonist	NET656
								Oxotremorine-M acetate, [methyl- <sup>3</sup> H]-	M <sub>1</sub> -M <sub>5</sub> agonist	NET671
Adenosine	$A_1$	$G/G_{_{0}}$	Human	CHO-K1	Χ	Χ	ES-010-M400UA	$\label{eq:cyclopentyl-1,3-dipropyl} Cyclopentyl-1,3-dipropylxanthine, 8-[dipropyl-2,3-^3H(N)]-$	A <sub>1</sub> antagonist	NET974
			Rat	CHO-K1	Χ		6110511400UA	Ethylcarboxamidoadenosine, 5'-N-[adenine-2,8-3H]-, (NECA)	A <sub>1</sub> , A <sub>2</sub> agonist	NET811
				Sf9	Х		6110120400UA			
	$A_{2A}$	$G_{_{S}}$	Human	HEK293	Χ		RBHA2AM400UA	CGS 21680, [carboxyethyl-3H(N)]-	A <sub>2</sub> agonist	NET1021
			Rat	CHO-K1			Please inquire	Ethylcarboxamidoadenosine, 5'-N-[adenine-2,8-3H]-, (NECA)	A <sub>1</sub> , A <sub>2</sub> agonist	NET811
	$A_{2B}$	$G_s$	Human	HEK293	Χ		ES-013-M400UA	CGS 21680, [carboxyethyl-3H(N)]-	A <sub>2</sub> agonist	NET102
								Ethylcarboxamidoadenosine, 5'-N-[adenine-2,8-3H]-, (NECA)	A <sub>1</sub> , A <sub>2</sub> agonist	NET811
	$A_3$	G/G <sub>o</sub>	Human	CHO-K1	Х	Χ	ES-012-M400UA	AB-MECA, (4-amino-3-[1251]iodobenzyl-5'-N-)-	A <sub>3</sub> agonist	NEX312
			Rat	HEK293 EBN/	A X		RBRA3M400UA	methylcarboxamideoadenosine		
Adrenoceptors	$\alpha_{_{1A}}$	$G_q/G_{11}$	Human	CHO-K1	Х		ES-036-M400UA	Prazosin, [7-methoxy- <sup>3</sup> H]-	$\boldsymbol{\alpha}_{_{1}}$ antagonist	NET823
								`HEAT, [1251]-	$\alpha_{_1}$ antagonist	NEX182
								`Prazosin analog [1251]-iodoazido-, (iodoarylazidoprazosin)	$\alpha_{_1}$ antagonist	NEX219
	$\alpha_{1B}$	$G_q/G_{11}$	Human	CHO-K1			Please inquire for n	nembrane availability		
	$\alpha_{\text{1D}}$	$G_q/G_{11}$	Human	CHO-K1			Please inquire for r	nembrane availability		
	$\alpha_{_{2A}}$	G/G <sub>o</sub>	Human	CHO-K1	Х	Χ	ES-030-M400UA	MK-912, [methyl- <sup>3</sup> H]-	$\alpha_2$ antagonist	NET105
				Sf9	Χ		6110113400UA	lodoclonidine, p-[1251]-(2-[(2,5-dichloro-4-[1251]	$\boldsymbol{\alpha}_2$ agonist	NEX253
								phenyl) imino] imidazolidine)		
								Clonidine hydrochloride, [benzene ring-3H]-	$\boldsymbol{\alpha}_{2}$ agonist	NET613
								Epinephrine, levo-[N-methyl-3H]-	endogenous	NET623
								Yohimbine, [methyl-3H]-	$\boldsymbol{\alpha}_{_{2}}$ antagonist	NET659
								Norepinephrine, levo-[ring-2,5,6-3H]-	endogenous	NET678
								Rauwolscine, [methyl- <sup>3</sup> H]-	$\boldsymbol{\alpha}_{_{2}}$ antagonist	NET722
								UK-14,304, [imidazolyl-4,5-³H]-	$\boldsymbol{\alpha}_{_{2}}$ agonist	NET853
								RX821002, [³H]	$\alpha_2$ antagonist	NET115
	$\boldsymbol{\alpha}_{\text{2B}}$	$G/G_{_{0}}$	Human	CHO-K1	Χ	X	ES-031-M400UA	MK-912, [methyl- <sup>3</sup> H]-	$\boldsymbol{\alpha}_{_{2}}$ antagonist	NET105
								lodoclonidine, p-[1251]-(2-[(2,5-dichloro-4-[1251]	$\boldsymbol{\alpha}_{_{2}}$ agonist	NEX253
								phenyl) imino] imidazolidine)		
								Clonidine hydrochloride, [benzene ring- <sup>3</sup> H]-	$\alpha_{_2}$ agonist	NET613
								Epinephrine, levo-[N-methyl- <sup>3</sup> H]-	endogenous	NET623
								Yohimbine, [methyl- <sup>3</sup> H]-	$\boldsymbol{\alpha}_{_{2}}$ antagonist	NET659
								Norepinephrine, levo-[ring-2,5,6-3H]-	endogenous	NET678
								Rauwolscine, [methyl- <sup>3</sup> H]-	$\alpha_2$ antagonist	NET722
								UK-14,304, [imidazolyl-4,5- <sup>3</sup> H]-	$\alpha_2$ agonist	NET853
								RX821002, [³H]	$\alpha_{_2}$ antagonist	NET115

# Ad-Br

Receptor type	Subtype	G-protein coupling	Species	Host cell E	Binding	GTPγS	Cat. No.	Complementary radioligands	Pharmacological action	Cat. No.
Adrenoceptors	$\alpha_{2C}$	$G_i/G_o$	Human	Sf9	Χ		6110114400UA	MK-912, [methyl- <sup>3</sup> H]-	$\alpha_{_2}$ antagonist	NET1059
				CHO-K1	Χ		ES-032-M400UA	lodoclonidine, p-[1251]-{2-[(2,6-dichloro-4-[1251] iodophenyl)imino]imidazolidine)	$\alpha_{_2}$ agonist	NEX253
								Clonidine hydrochloride, [benzene ring-3H]-	$\alpha_2$ agonist	NET613
								Epinephrine, levo-[N-methyl-3H]-	endogenous	NET623
								Yohimbine, [methyl- <sup>3</sup> H]-	$\alpha$ , antagonist	NET659
								Norepinephrine, levo-[ring-2,5,6-3H]-	endogenous	NET678
								Rauwolscine, [methyl-³H]-	$\alpha$ , antagonist	NET722
								UK-14,304, [imidazolyl-4,5-3H]-	$\alpha_2$ agonist	NET853
								RX821002, [³H]	$\alpha_2$ antagonist	NET1153
	$\beta_1$	$G_s$	Human	CHO-K1	Χ		ES-033-M400UA	(-)-CGP 12177, [5,7-3H]-	antagonist	NET1061
				Sf9	Χ		6110110400UA	(-)-Cyanopindolol, [125]-	antagonist	NEX189
								(-)-Pindolol, [ <sup>125</sup> I]-	antagonist	NEX211
								Propranolol, L-[4-3H]-	antagonist	NET515
								Dihydroalprenolol hydrochloride, levo [ring, propyl-3H]-	antagonist	NET720
								(+/-)-Cyanopindolol, [125]-	antagonist	NEX174
	$\boldsymbol{\beta}_2$	$G_{s}$	Human	CHO-K1	Χ		ES-034-M400UA	(-)-CGP 12177, [5,7-3H]-	antagonist	NET1061
				Sf9	Χ		6110106400UA	(-)-Cyanopindolol, [125]-	antagonist	NEX189
				HEK293 EBNA	X X		RBHBE2M400UA	(-)-Pindolol, [ <sup>125</sup> l]-	antagonist	NEX211
								Propranolol, L-[4-3H]-	antagonist	NET515
								Dihydroalprenolol hydrochloride, levo [ring, propyl-3H]-	antagonist	NET720
								(+/-)-Cyanopindolol, [1251]-	antagonist	NEX174
	$\beta_3$	Gs	Human	CHO-K1	Х		ES-035-M400UA	(-)-CGP 12177, [5,7- <sup>3</sup> H]-	antagonist	NET1061
				SK-N-MC	Χ		RBHBE3M400UA*	(-)-Cyanopindolol, [125]-	antagonist	NEX189
								(-)-Pindolol, [ <sup>125</sup> l]-	antagonist	NEX211
								Propranolol, L-[4-3H]-	antagonist	NET515
								Dihydroalprenolol hydrochloride, levo [ring, propyl-3H]-	antagonist	NET720
								(+/-)-Cyanopindolol, [1251]-	antagonist	NEX174
Anaphylatoxin	C3a	G <sub>i</sub> /G <sub>o</sub>	Human	CHO-K1	Х	Х	ES-730-M400UA	Complement C3a , [1251]-, Bolton-Hunter labeled	C3a endogenous	NEX356
	C5a	$G_{l}/G_{o}$	Human	CHO-K1	Χ	Χ	ES-731-M400UA	Complement C5a , [125]-, Bolton-Hunter labeled	C5a endogenous	NEX250
				CHO-K1	Х		6110526400UA			
Angiotensin	AT <sub>1</sub>	G <sub>q/11</sub> , Gi/o	Human	Sf9	Χ		6110121400UA	Angiotensin II (Sar <sup>1</sup> , Tyr <sup>4,</sup> Ile <sup>8</sup> ), [ <sup>125</sup> I]-	AT antagonist	NEX248
				CHO-K1	Χ		ES-072-M400UA	Angiotensin I (Tyr <sup>4</sup> ), [ <sup>125</sup> I]-	endogenous	NEX101
								Angiotensin IV (Tyr²), [1251]-	Non AT <sub>1</sub> , non AT <sub>2</sub> agonist	NEX295
								Angiotensin II (Tyr <sup>4</sup> ), [ <sup>125</sup> I]-	endogenous	NEX105
	$AT_2$	$G_{l}/G_{o}$	Human	CHO-K1	Χ		ES-070-M400UA	Angiotensin II (Sar1, Tyr <sup>4</sup> , Ile <sup>8</sup> ), [ <sup>125</sup> I]-	AT antagonist	NEX248
			Mouse	CHO-K1	Χ		ES-071-M400UA	Angiotensin IV (Tyr²), [125]-	Non AT <sub>1</sub> , non AT <sub>2</sub> agonist	NEX295
								Angiotensin II (Tyr <sup>4</sup> ), [ <sup>125</sup> I]-	endogenous	NEX105
								CGP42112A, [1251]-	AT <sub>2</sub> antagonist	NEX324
Apelin	APJ	G <sub>i</sub> /G <sub>o</sub>	Human	CHO-K1	Χ	Х	ES-460-M400UA	Apelin 13 (Glp <sup>65</sup> , Nle <sup>75</sup> , Tyr <sup>77</sup> ), [ <sup>125</sup> l]-	APJ agonist	NEX393
Beta Alanine	MRGPRD, TG	R7 G <sub>q</sub> /G <sub>11</sub>	Human	CHO-K1			Please inquire for n	nembrane availability		
Deta / Harring		CIC	Human	CHO-K1	Χ		RBHBS1M400UA	Bombesin (Tyr <sup>4</sup> ), [1251]-	agonist	NEX258
Bombesin	BB <sub>1</sub>	$G_q/G_{11}$					RBHBS2M400UA	Bombesin (Tyr4), [125]-		NEX258
	BB <sub>1</sub>		Human	HEK293	Χ		NDI ID3ZIVI4000A	Bornbesin (Tyr*), [***1]-	agonist	INLAZJO
		G <sub>q</sub> /G <sub>11</sub>		HEK293 CHO-K1	X X		ES-582-M400UA	Gastrin Releasing Peptide (Tyr <sup>15</sup> ) (Porcine), [ <sup>125</sup> I]-	agonist agonist	NEX421
	BB <sub>2</sub>	G <sub>q</sub> /G <sub>11</sub>				-		Gastrin Releasing Peptide (Tyr <sup>15</sup> ) (Porcine), [ <sup>125</sup> I]-	-	
			Human	CHO-K1	Х		ES-582-M400UA	.,	agonist	NEX421
	BB <sub>2</sub>	G <sub>q</sub> /G <sub>11</sub>	Human	CHO-K1	Х		ES-582-M400UA	Gastrin Releasing Peptide (Tyr¹5) (Porcine), [¹²51]-Bombesin (6-14) (D-Tyr $_6$ - $\beta$ Ala¹¹, Phe¹³, Nle14), [¹²51]-	agonist BB3 agonist	NEX421 NEX377
Bombesin	BB <sub>2</sub>	G <sub>q</sub> /G <sub>11</sub>	Human	CHO-K1 Balb 3T3	X		ES-582-M400UA RBHBS3M400UA	Gastrin Releasing Peptide (Tyr <sup>15</sup> ) (Porcine), [ <sup>125</sup> ]- Bombesin (6-14) (D-Tyr <sub>6</sub> - βAla <sup>11</sup> , Phe <sup>13</sup> , Nle14), [ <sup>125</sup> ]- Bombesin (Tyr <sup>6</sup> ), [ <sup>125</sup> ]-	agonist BB3 agonist agonist	NEX421 NEX377 NEX258

# Ca-Ch

Receptor type	Subtype	G-protein coupling	Species	Host cell	Binding	GTPγS	Cat. No.	Complementary radioligands	Pharmacological action	
Calcitonin	CGRP <sub>1</sub>	$G_s$	Human	CHO-K1	Χ		ES-420-M400UA	Calcitonin Gene Related Peptide , [1251]-, ([1251]-hCGRP)	CGPR1, endogenous	NEX354
				Sf9	Χ		6110135400UA	Calcitonin Gene Related Peptide (8-37), [1251]-,	CGPR1 antagonist	NEX319
				SK-N-MC	Χ		RBHGRPM400UA*	([ <sup>125</sup> I]-hCGRP)		
	$AM_1$	$G_s$	Human	Sf9	Χ		6110136400UA	Adrenomedullin (13-52), (Tyr), [1251]-	AM <sub>1</sub> , AM <sub>2</sub> , endogenous	NEX385
								Adrenomedullin (rat), [1251]-	AM <sub>1</sub> , AM <sub>2</sub> , endogenous	NEX427
	$AM_2$	$G_{s'}$ $G_{ilo}$	Human	CHO-K1	Χ		ES-430-M400UA	Adrenomedullin (13-52), (Tyr), [125]-	AM <sub>1</sub> , AM <sub>2</sub> , endogenous	NEX385
								Adrenomedullin (rat), [1251]-	AM <sub>1</sub> , AM <sub>2</sub> , endogenous	NEX427
Cannabinoid	CB <sub>1</sub>	G/G <sub>o</sub>	Human	CHO-K1	Χ	Χ	ES-110-M400UA	CP 55940, [side chain-2,3,4-3H(N)]-	agonist	NET105
				Sf9	Χ		6110129400UA	WIN 55,212-2, [5,7-naphtyl-3H]-	agonist	NET105
				HEK293 EBNA	X		RBHCB1M400UA	Anadamide, [arachidonyl-5,6,8,9,11,12,14,15-3H]-	CB, endogenous	NET107
								SR141716A, [³H]	CB, antagonist	NET115
	CB <sub>2</sub>	$G/G_{_{0}}$	Human	Sf9	Χ		6110130400UA	CP 55940, [side chain-2,3,4-3H(N)]-	agonist	NET105
				HEK293 EBNA	X		RBXCB2M400UA	WIN 55,212-2, [5,7-naphtyl-3H]-	agonist	NET105
				CHO-K1	Χ	Χ	ES-111-M400UA	Anadamide, [arachidonyl-5,6,8,9,11,12,14,15-3H]-	CB, endogenous	NET107.
Chemokine	CCR1	G/G <sub>o</sub>	Human	HEK293	Χ		RBHCC1M400UA	MIP-1 $\alpha$ , [125]-	CCR1, CCR4, CCR5,	NEX298
									endogenous	
								RANTES, [1251]-	CCR1, CCR3, CCR4,	NEX292
									CCR5, endogenous	
	CCR2b	$G_{i}/G_{o}$	Human	CHO-K1	Χ	X	ES-133-M400UA	MCP-1, [1251]-, Bolton-Hunter labeled	CCR2, endogenous	NEX332
				HEK293	Χ		6110550400UA	JE, [1251]-, Bolton-Hunter labeled	CCR2 agonist	NEX313
								(murine, recombinant MCP-1)		
	CCR3	$G/G_{\circ}$	Human	CHO-K1	Χ	Χ	ES-138-M400UA	Eotaxin, [1251]-	CCR3, endogenous	NEX314
	CCR5	G/G <sub>o</sub>		CHO-K1			Please inquire	MIP-1β (Leu³,Gly⁴7), [¹25I]-	endogenous	NEX299
					ability					
	CCR6	G/G <sub>o</sub>	Human	CHO-K1	Χ	Χ	ES-139-M400UA	MIP-3 $\alpha$ , [125]-	CCR6, endogenous	NEX371
	CCR7	G/G	Human	CHO-K1	Χ	Χ	ES-140-M400UA	MIP-3β, [ <sup>125</sup> I]-	CCR7, endogenous	NEX370
		, 0						6-Ckine, [1251]-, Bolton-Hunter labeled	CCR7, endogenous	NEX387
	CCR8	G/G	Human	CHO-K1	Χ	Χ	ES-136-M400UA	I309, [125I]-, Bolton-Hunter labeled	CCR8, endogenous	NEX364
	CCR9a	G/G	Human	CHO-K1			Please inquire for m	nembrane availability	*	
	CCR10	G/G	Human	CHO-K1			Please inquire	CTACK, [1251]-	CCR10, endogenous	NEX391
	CCITIO	0,0	Human	CHOICI			for membrane avail		centro, enaogenous	NEASSI
	CX,CR1	G/G	Human	CHO-K1	Х	χ	ES-137-M400UA	Fractalkine, [125]-	CX,CR1, endogenous	NE368
	CXCR2		Human		Х	Х		Interleukin-8, [125]-, ([125]-IL-8)	, , ,	
	CACRZ	G/G <sub>o</sub>	Пини	CHO-K1	^	^	ES-145-M400UA		CXCR1, CXCR2, endogenous	NEX277
				Sf9	Χ		6110132400UA	GRO Alpha/MGSA, [125]-	CXCR2, endogenous	NEX321
	CXCR3	CIC	Human		Х	Χ		I-TAC, [1251]-	CXCR3, endogenous	NEX376
	CACRO	G <sub>i</sub> /G <sub>o</sub>	Пинан	CHO-K1	^	۸	ES-142-M400UA	IP-10, [1251]-	CXCR3, endogenous	NEX348
		C 1C		CHO I/4		ν.	FC 700 14400UA++			
	CXCR6	G/G <sub>o</sub>	Human	CHO-K1	V	X	ES-720-M400UA**	CXCL16, [123]-	CXCR6, endogenous	NEX398
				HEK293	Х		RBHCX6M400UA			
	XCR1	Gi/Go	Human	CHO-K1		Х	ES-148-M400UA**			
Cholecystokinin	CCK <sub>1</sub>	$G_q/G_{11}$	Human	1321N1	Χ		ES-530-M400UA	Cholecystokinin octapeptide, [1251]-,	endogenous	NEX203
				510	.,			Bolton-Hunter labeled, ([1251]]-CCK-8)		
				Sf9	X		6110125400UA	Gastrin I (Tyr <sup>12</sup> ), [ <sup>125</sup> I]-	endogenous	NEX176
				NIH-3T3	Х		6110508400UA	Interloukin 9 /II 9) /h r) Decenter Crade [1251]	agonist	NEVAAS
								Interleukin-8 (IL-8) (h,r) Receptor Grade, [125]	agonist	NEX443
								CCK-8, [³H]	agonist	NET116

# Co-Do

Receptor type	Subtype	G-protein coupling	Species	Host cell	Binding	GTPγS	Cat. No.	Complementary radioligands	Pharmacological action	Cat. No
	CCK <sub>2</sub>	$G_q/G_{11}$	Human	1321N1	Х		ES-531-M400UA	Cholecystokinin octapeptide, [1251]-, Bolton-Hunter labeled, [[1251]-CCK-8)	endogenous	NEX20
				HEK293	Χ		RBHCKBM400UA	Gastrin I (Tyr <sup>12</sup> ), [ <sup>125</sup> I]-	endogenous	NEX176
								Interleukin-8 (IL-8) (h,r) Receptor Grade, [1251]	agonist	NEX44
								CCK-8, [³H]	agonist	NET116
Corticotropin-	CRF <sub>1</sub>	G <sub>s</sub>	Human	HEK293	Х		RBHCRF1M400UA	Sauvagine (Tyr <sup>0</sup> ), [ <sup>125</sup> I]-	endogenous	NEX30
Releasing Factor				CHO-K1	Χ		ES-152-M400UA	CRF (Tyr <sup>0</sup> ) (ovine), [1251]-	CRF agonist	NEX21
								CRF (Tyr <sup>o</sup> ) (human,rat), [ <sup>125</sup> I]-	endogenous	NEX21
Dopamine	$D_1$	$G_s$	Human	L Cells	Χ		6110513400UA	SCH 23390, [N-methyl-3H]-	D <sub>1</sub> , D <sub>5</sub> antagonist	NET93
				CHO-K1	Χ		ES-172-M400UA	Dihydroxyphenylethylamine,	endogenous	NET67
								3,4-[ring-2,5,6-3H]-, (Dopamine)		
								Dihydroxyphenylethylamine, 3,4-[7-3H]-	endogenous	NET13
								Dihydroxyphenylethylamine [2,5,6,7,8-3H] (Dopamine)	D <sub>1</sub> antagonist	NET11
	D <sub>2L</sub>	G/G <sub>o</sub>	Human	Sf9	Х		6110137400UA	lodospiperone, 2'-[ <sup>125</sup> l]-	D, antagonist	NEX28
	ZL	1 0						R (+) trans-7-hydroxy-PIPAT, [125]-	D <sub>2</sub> , D <sub>3</sub> agonist	NEX30
								Spiperone, [benzene ring-3H]-, (Spiroperidol)	D, antagonist	NET56
								Dihydroxyphenylethylamine, 3,4-[rinq-2,5,6- <sup>3</sup> H]-, (Dopamine)	endogenous	NET6
								lodosulpride, [125]]-	D <sub>2</sub> , D <sub>3</sub> antagonist	NEX4
								(-)Sulpiride, [methoxy- <sup>3</sup> H]-	D, antagonist	NET7
								Methylspiperone, [N-methyl- <sup>3</sup> H]-	D <sub>2</sub> antagonist	NET8
									2 3	
								Raclopride, [methoxy-³H]-	D <sub>2</sub> antagonist	NET9
								YM-09151-2, [N-methyl- <sup>3</sup> H]-	D <sub>2</sub> antagonist	NET1
-								Dihydroxyphenylethylamine, 3,4-[7-³H]-	endogenous	NET1
								Amisulpride (DAN-2163), [1251]-	D <sub>2</sub> , D <sub>3</sub> antagonist	NEX4
								Domperidone, [benzene ring-³H]-	D <sub>2</sub> , D <sub>3</sub> antagonist	NET6
								Quinpirole, [N-propyl- <sup>3</sup> H]-		
	$D_{2S}$	$G_{\rm i}/G_{_{\rm o}}$	Human	CHO-K1	Χ		RBHD2CM400UA	lodospiperone, 2'-[ <sup>125</sup> l]-	D <sub>2</sub> antagonist	NEX2
								R (+) trans-7-hydroxy-PIPAT, [1251]-	D <sub>2</sub> , D <sub>3</sub> agonist	NEX3
								Spiperone, [benzene ring-3H]-, (Spiroperidol)	D <sub>2</sub> antagonist	NET5
								Dihydroxyphenylethylamine, 3,4-[ring-2,5,6-3H]-, (Dopamine)	endogenous	NET6
								lodosulpride, [1251]-	D <sub>2</sub> , D <sub>3</sub> antagonist	NEX4
								(-)Sulpiride, [methoxy-3H]-	D, antagonist	NET7
								Methylspiperone, [N-methyl- <sup>3</sup> H]-	D <sub>2</sub> , D <sub>3</sub> antagonist	NET8
								Raclopride, [methoxy- <sup>3</sup> H]-	D, antagonist	NET9
								YM-09151-2, [N-methyl- <sup>3</sup> H]-	D, antagonist	NET1
								Dihydroxyphenylethylamine, 3,4-[7-³H]-	endogenous	NET1
								Amisulpride (DAN-2163), [125]-	D <sub>2</sub> , D <sub>3</sub> antagonist	NEX4
								Domperidone, [benzene ring-3H]-	D <sub>2</sub> , D <sub>3</sub> antagonist	NET6
								Quinpirole, [N-propyl-3H]-	D <sub>2</sub> , D <sub>3</sub> antagonist	NET1
	D <sub>3</sub>	G <sub>i</sub> /G <sub>o</sub>	Human	CHO-K1	Х	Х	ES-173-M400UA	Dihydroxyphenylethylamine,	endogenous	NET6
								3,4-[ring-2,5,6- <sup>3</sup> H]-, (Dopamine)		
								Dihydroxyphenylethylamine, 3,4-[7-3H]-	endogenous	NET1
			Rat	Sf9	Χ		6110139400UA	R (+) trans-7-hydroxy-PIPAT, [1251]-	D <sub>2</sub> , D <sub>3</sub> agonist	NEX3
								lodosulpride, [1251]-	D <sub>2</sub> , D <sub>3</sub> antagonist	NEX4
								Methylspiperone, [N-methyl- <sup>3</sup> H]-	D <sub>2</sub> , D <sub>3</sub> antagonist	NET8
								Amisulpride (DAN-2163), [1251]-	D, D, antagonist	NEX4
								Domperidone, [benzene ring-³H]-	D <sub>2</sub> , D <sub>3</sub> antagonist	NET6
								Quinpirole, [N-propyl- <sup>3</sup> H]-	D <sup>2</sup> , D <sup>3</sup> agonist	NET10
								R(+)7-Hydroxy DPAT, [3H]	agonist	NET1
	D <sub>4</sub>	G <sub>i</sub> /G <sub>o</sub>	Rat	CHO-K1			Please inquire	Dihydroxyphenylethylamine, 3,4-[ring-2,5,6-3H]-, (Dopamine)	endogenous	NET6
		GIG	Human	Sf9	Χ		6110112400UA	Dihydroxyphenylethylamine, 3,4-[7-3H]-	endogenous	NET1
	D <sub>4.2</sub>	G <sub>i</sub> /G <sub>o</sub>	riuman	CHO-K1	X		RBHD42M400UA	υπγαιολγμπετητετηταπιπτε, 3,4*[/* Π]*	chaogenous	INET I
				CHO-VI	٨		NUUU4ZIVI4UUUA			

# Do-Hi

Receptor type	Subtype	G-protein coupling	•		Binding	GTPγS	Cat. No.	Complementary radioligands	Pharmacological action	Cat. No.
Dopamine (Continued)	D <sub>4.4</sub>	G/G <sub>o</sub>	Human	Sf9 CHO-K1	X		6110122400UA RBHD44M400UA			
	D <sub>4.7</sub>	G/G <sub>o</sub>	Human	Sf9	Х		6110123400UA			
	4.7	0,00	numun	CHO-K1	Χ		RBHD47M400UA			
	D <sub>5</sub>	$G_s$	Human	HEK293	Х		RBHD5M400UA	Dihydroxyphenylethylamine, 3,4-[ring-2,5,6-3H]-, (Dopamine)	endogenous	NET673
								SCH 23390, [N-methyl- <sup>3</sup> H]-	D <sub>1</sub> , D <sub>s</sub> antagonist	NET930
								Dihydroxyphenylethylamine, 3,4-[7-3H]-	endogenous	NET131
Endothelin	ET <sub>A</sub>	$G_q/G_{11}$	Human	CHO-K1	Χ		ES-320-M400UA	Endothelin-1 (Tyr¹³), [¹²⁵I]-	endogenous	NEX25
	ET <sub>B</sub>	$G_q/G_{11}$	Human	CHO-K1	Χ		ES-321-M400UA	Endothelin-1 (Tyr <sup>13</sup> ), [ <sup>125</sup> I]-	endogenous	NEX259
Formyl Peptide	FPRL1	G/G <sub>o</sub>	Human	CHO-K1	Χ	Χ	ES-610-M400UA	WKYMVm, [1251]-, Bolton-Hunter labeled	FPRL1 agonist	NEX38
Free Fatty Acid	FFA1 (GPR40)	G <sub>0</sub> /G <sub>11</sub>	Human	CHO-K1			Please inquire for n	nembrane availability		
				1321N1			Please inquire for n	nembrane availability		
GABA <sub>B</sub>	GABA <sub>B1a</sub>		Human	CHO-K1	Χ		6110545400UA	Baclofen, (-)-[butyl-4-3H(N)]-	GABAB agonist	NET867
				HEK293	Х		6110560400UA	aminobutyric acid, $\gamma$ -[2,3- $^3$ H(N)]-	endogenous	NET191
	$GABA_{\mathtt{B1b}}$		Human	CHO-K1	Χ		6110546400UA	aminobutyric acid, $\gamma$ -[2,3- $^3$ H(N)]-	endogenous	NET191
				HEK293	Х		6110557400UA	Butyl bicyclophosphorothionate, tertiary-[35S]-	Cl-channel non-	NEG04
									competitive antagonist	
	$GABA_{\mathtt{B1a/B2}}$	G/G <sub>o</sub>	Human	HEK293 CHO-K1	X	v	6110559400UA			
C.L.	CAL	6.16				Х	ES-500-M400UA	C   1   1   1   1   1   1   1   1   1		NEVO 4
_	GAL <sub>1</sub>	$G/G_o$	Human	HEK293 EBNA CHO-K1	A X	Χ	6110537400UA ES-510-M400UA	Galanin (porcine), [125]- Galanin (human), [125]-	agonist endogenous	NEX24: NEX33:
	CAL	C IC	Human			^			-	
	GAL <sub>2</sub>	$G_q/G_{11}$	Human	CHO-K1	Х		ES-511-M400UA	Galanin (porcine), [125]- Galanin (human), [125]-	agonist endogenous	NEX243 NEX333
								Galanin (2-11), [ <sup>125</sup> 1]-	GAL, GAL, agonist	NEX416
Ghrelin	ghrelin	G <sub>q</sub> /G <sub>11</sub>	Human	HEK293	Х		RBHGHSM400UA	Ghrelin (His), [ <sup>125</sup> I]-	endogenous	NEX388
	5	-q' -11		CHO-K1	Χ		ES-410-M400UA	Ghrelin (Tyr <sup>4</sup> ), [ <sup>125</sup> ]-	agonist	NEX41
Glucagon	glucagon	G <sub>c</sub>	Human	1321N1	χ		ES-710-M400UA	Glucagon, [125]-	endogenous	NEX207
	GIP	G <sub>c</sub>	Human	HEK293	Х		RBHGIPM400UA	Gastric Inhibitory Polypeptide, [1251]-	endogenous	NEX402
•	GLP-2	G,	Human	1321N1			Please inquire	Exendin (9-39), [125]-	GLP-1 antagonist	NEX335
		· \$					1	GLP-1 (7-36), [ <sup>125</sup> ]-	GLP-1 agonist	NEX308
								GLP-2, [1251]-, Bolton-Hunter labeled	GLP-2 agonist	NEX390
Glutamate	mGlu <sub>sa</sub>	G <sub>g</sub> /G <sub>11</sub>	Human	CHO-K1	Χ		ES-555-M400UA	Quisqualic Acid,[³H]	mGlu1, mGlu5 agonist	NET116
•	mGlu <sub>7</sub>	G/G	Human	CHO-K1			Please inquire for n	nembrane availability		
Glycoprotein Hormone	TSH	All	Human	CHO-K1			Please inquire for n	nembrane availability		
Gonadotrophin-releasing Hormone		$G_q/G_{11}$	Human	CHO-K1	Х		ES-600-M400UA	Luteinizing Hormone-Releasing Hormone (D-Trp <sup>0</sup> ), [ <sup>125</sup> ]]-, ([ <sup>125</sup> ]]-(D-Trp <sup>0</sup> )-LHRH)	GnRH agonist	NEX36
nomone								Luteinizing Hormone Releasing Hormone (Tyr <sup>5</sup> ), [ <sup>125</sup> I]-	agonist	NEX163
GPR	GPR91	G/G	Human	CHO-K1			Please inquire for n	nembrane availability	-	
	GPR120	G/G	Human	CHO-K1				nembrane availability		
•	OXGR1	G/G	Human	CHO-K1				nembrane availability		
	(GPR99, Citric		rumuli	CHOTKI			r icase myune ioi ii	termorane arandomicy		
Histamine	Н,	G <sub>q</sub> /G <sub>11</sub>	Human	CHO-K1	Х		ES-390-M400UA	Pyrilamine, [pyridinyl 5-3H]-, (Mepyramine)	H, antagonist	NET594
	1	ų II						Histamine dihydrochloride, [ring, methylenes-3H(N)]-	endogenous	NET732
•	Н,	G <sub>s</sub>	Human	HEK293	Х		6110565400UA	Tiotidine, [methyl-3H]-, (ICI 125,211)	H <sub>2</sub> antagonist	NET688
	2	,		CHO-K1	Χ		ES-391-M400UA	Histamine dihydrochloride, [ring, methylenes-3H(N)]-	endogenous	NET732
								Aminopotentidine, [1251]-	H <sub>2</sub> antagonist	NEX431

# Hi-Ne

Receptor type	Subtype	G-protein coupling	Species	Host cell B	linding	GTPγS	Cat. No.	Complementary radioligands	Pharmacological action	Cat. No.
Histamine (Continued)	H <sub>3</sub>	$G_i/G_o$	Human	CHO-K1	X	X	ES-392-M400UA	Methylhistamine dihydrocloride, N- $\alpha$ -[methyl- $^3$ H]-Proxyfan, [ $^{125}$ I]-	H <sub>3</sub> agonist H <sub>3</sub> protean agonist	NET102 NEX436
	H <sub>4</sub>	G/G <sub>o</sub>	Human	CHO-K1	Χ	Х	ES-393-M400UA	Histamine dihydrochloride, [ring, methylenes-3H(N)]-	endogenous	NET732
KiSS1 (Metastin)	KISS1 (GPR54	) G <sub>q</sub> /G <sub>11</sub>	Human	MDA-MB-435S CHO-K1	X X		ES-630-M400UA RBHMTSM400UA	Metastin 45-54, [1251]-	agonist	NEX395
Leukotriene	BLT <sub>1</sub> (LTB4R1)	G <sub>a</sub> /G <sub>11</sub>	Human	CHO-K1	Х	Х	ES-340-M400UA	Leukotriene B <sub>4</sub> , [5,6,8,9,11,12,14,15- <sup>3</sup> H(N)]-	endogenous	NET852
	CysLT <sub>1</sub>	G <sub>q</sub> /G <sub>11</sub>	Human	CHO-K1	Х		ES-470-M400UA	Leukotriene D <sub>4</sub> , [14,15,19,20-³H(N)]- Leukotriene C <sub>4</sub> , [14,15,19,20-³H(N)]-	endogenous endogenous	NET101 NET101
	OXE (HM74-lik	e) G <sub>/</sub> /G <sub>o</sub>	Human	CHO-K1			Please inquire for r	nembrane availability		
Lysophospholipid	S <sub>1</sub> P <sub>2</sub> (EDG5)	G <sub>q</sub>	Human	CHO-K1			Please inquire for r	nembrane availability		
	S <sub>1</sub> P <sub>4</sub> (EDG6)	G <sub>I</sub> /G <sub>o</sub>	Human	CHO-K1			Please inquire for r	nembrane availability		
	S <sub>1</sub> P <sub>5</sub> (EDG8)	G <sub>i</sub> /G <sub>o</sub>	Human	CHO-K1			Please inquire for r	nembrane availability		
Mas related	MrgX1	G <sub>a</sub> /G <sub>11</sub>	Human	CHO-K1			Please inquire for r	nembrane availability		
	MrgX2	G <sub>q</sub> /G <sub>11</sub>	Human	CHO-K1			Please inquire for r	nembrane availability		
Melanin-Concentrating Hormone	MCH <sub>1</sub>	G <sub>q</sub> /G <sub>11</sub>	Human	CHO-K1	X	X	ES-370-M400UA	\$36057 (Tyr), [1251]- Melanin-Concentrating Hormone, [1251]- Melanin-Concentrating Hormone (Phe <sup>13</sup> , Tyr <sup>19</sup> ), [1251]- MCH-1R Antagonist, [1251]-	MCH receptor agonist MCH receptor agonist MCH receptor agonist MCH, antagonist	NEX396 NEX373 NEX375 NEX406
	MCH <sub>2</sub>	$G_q/G_{11}$	Human	1321N1	X		ES-372-M400UA	S36057 (Tyr), [125]]- Melanin-Concentrating Hormone, [125]]- Melanin-Concentrating Hormone (Phe <sup>13</sup> , Tyr <sup>19</sup> ), [125]]-	MCH receptor agonist MCH receptor agonist MCH receptor agonist	NEX396 NEX373 NEX375
Melanocortin	MC <sub>1</sub>	$G_s$	Human	CHO-K1	Х		ES-195-M400UA	SHU9119, [¹²⁵i]- α-MSH (Nle⁴, D-Phe²), [¹²⁵i]-	MC1, MC5 agonist MC agonist	NEX362 NEX352
	MC <sub>3</sub>	$G_s$	Human Mouse	HEK293 CHO-K1 CHO-K1	X X X		RBXMC3M400UA ES-193-M400UA ES-190-M400UA	α-MSH (Nle <sup>4</sup> , D-Phe <sup>7</sup> ), [ <sup>125</sup> ]- SHU9119, [ <sup>125</sup> ]-	MC agonist MC <sub>3</sub> , MC <sub>4</sub> antagonist	NEX352 NEX362
	MC <sub>4</sub>	G <sub>s</sub>	Human	HEK293 CHO-K1	X X		RBHMC4M400UA ES-191-M400UA	α-MSH (Nle <sup>4</sup> , D-Phe <sup>7</sup> ), [ <sup>125</sup> ]]- SHU9119, [ <sup>125</sup> ]]- AGRP (Ac 87-132), [ <sup>125</sup> ]]- MT II (His), [ <sup>125</sup> ]]-	MC agonist  MC <sub>3</sub> , MC <sub>4</sub> antagonist  MC <sub>4</sub> agonist  MC <sub>4</sub> agonist	NEX352 NEX362 NEX372 NEX374
	MC <sub>5</sub>	G <sub>s</sub>	Human Mouse	HEK293 EBNA CHO-K1 CHO-K1	X X X		RBXMC5M400UA ES-194-M400UA ES-192-M400UA	α-MSH (Nle <sup>4</sup> , D-Phe <sup>7</sup> ), [ <sup>125</sup> I]- SHU9119, [ <sup>125</sup> I]-	MC agonist MC <sub>1</sub> , MC <sub>5</sub> agonist	NEX352 NEX362
Melatonin	MT,	G/G	Human	CHO-K1	Х	Х	ES-620-M400UA	Melatonin, 2-[125 ]-	agonist	NEX236
catomi	MT.	G/G <sub>0</sub>	Human	CHO-K1	Х	Х	ES-621-M400UA	Melatonin, 2-[1251]-	agonist	NEX236
Motilin	motilin	G <sub>q</sub> /G <sub>11</sub>	Human	HEK293 CHO-K1	X		RBHMOTM400UA ES-380-M400UA		endogenous	NEX378
Muscarinic (see Acetylcho	oline)									
Neuromedin U	NMU1	$G_q/G_{11}$	Human	HEK293 CHO-K1	X X		RBHNU1M400UA ES-450-M400UA	Neuromedin U-25 (Tyr <sup>18</sup> ), [ <sup>125</sup> I]-, ([ <sup>125</sup> I]-NMU-25) Neuromedin U-8, [ <sup>125</sup> I]-	NMU1, NMU2 agonist	NEX383 NEX392
	NMU2	$G_q/G_{11}$	Human	HEK293 CHO-K1	X X		RBHNU2M400UA ES-451-M400UA	Neuromedin U-8, [ <sup>125</sup> I]- Neuromedin U-25 (Tyr <sup>18</sup> ), [ <sup>125</sup> I]-, ([ <sup>125</sup> I]-NMU-25)	NMU1, NMU2 agonist	NEX392 NEX383
Neuropeptide S	NPS	Gq/G11	Human	CHO-K1			Please inquire	Neuropeptide S (Tyr <sup>10</sup> ), [ <sup>125</sup> I]-	endogenous	NEX411
Neuropeptide FF	NPFF1	G <sub>i</sub> /G <sub>o</sub>	Human	CHO-DHFR(-) 1321N1	X X		RBHNF1M400UA ES-491-M400UA	Neuropeptide FF (D-Tyr¹, N-MePhe³), [1251]-	NPFF1, NPFF2 agonist	NEX381
	NPFF2	G/G	Human	CHO-K1	Χ		RBHNF2M400UA	Neuropeptide FF (D-Tyr1, N-MePhe3), [1251]-	NPFF1, NPFF2 agonist	NEX38

# Ne-Pr

Receptor type	Subtype	G-protein coupling	Species	Host cell	Binding	GTPγ:	S Cat. No.	Complementary radioligands	Pharmacological action	Cat. No.
Neuropeptide W/B	NPBW2 (GPR8)	$G_i/G_o$	Human	HEK293	Χ		RBHGP8M400UA	Neuropeptide W23, [125I]-	NPBW2, endogenous	NEX403
								Neuropeptide B23 (Des-Br), [1251]-	NPBW2, endogenous	NEX40
Neuropeptide Y	Y <sub>1</sub>	G/G <sub>o</sub>	Human	Sf9	Χ		6110133400UA	Peptide YY (porcine), [1251]-, ([1251]-PYY)	NPY agonist	NEX240
				SK-N-MC	Χ		RBHNP1M400UA*	Peptide YY (Leu <sup>31</sup> , Pro <sup>34</sup> ), [ <sup>125</sup> I]-	Y <sub>1</sub> agonist	NEX334
								Pancreatic polypeptide, [1251]-	endogenous	NEX315
								Peptide YY (human), [1251]-, ([1251]-PYY)	endogenous	NEX341
	Υ <sub>2</sub>	Gi/Go	Human	KAN-TS	Χ		RBHNP2M400UA*	Peptide YY (porcine), [125]-, ([125]-PYY)	NPY agonist	NEX240
								Pancreatic polypeptide, [1251]-	endogenous	NEX315
								Peptide YY (human), [1251]-, ([1251]-PYY)	endogenous	NEX34
								Neuropeptide Y (porcine), [1251]-	agonist	NEX22
Neurotensin	NTS <sub>1</sub>	$G_q/G_{11}$	Human	CHO-K1	Χ		6110518400UA	Neurotensin (Tyr³), [1251]-	endogenous	NEX19
				HEK293	Χ		RBXNT1M400UA	Neurotensin, [3,11-tyrosyl-3,5-3H(N)]-	endogenous	NET605
				CHO-K1	Χ		ES-690-M400UA			
	$NTS_2$	$G_q/G_{11}$	Human	HEK293	Χ		6110566400UA	Neurotensin (Tyr³), [1251]-	endogenous	NEX198
		,		1321N1	Χ		ES-691-M400UA	Neurotensin, [3,11-tyrosyl-3,5-3H(N)]-	endogenous	NET605
Nicotinic	GPR109A (HM74A	) G/G <sub>0</sub>	Human	CHO-K1	Χ	Χ	ES-760-M400UA			
Opioid	delta	G/G	Human	CHO-K1	Х		RBHODM400UA	Naltrindole, [5',7'-3H]-	delta antagonist	NET106
•		1 0	•	HEK293	Χ		6110549400UA	Met (O) <sup>5</sup> -Enkephalin, [125I-Tyr <sup>1</sup> ]-	delta agonist	NEX149
			Mouse	Sf9	Х		6110115400UA	Enkephalin (2-D-Alanine-5-D-Leucine),	delta agonist	NET648
								[Tyrosyl-3,5- <sup>3</sup> H(N)]-		
								Enkephalin, [Tyrosyl-2,6-3H(N)]-,	delta agonist	NET922
								(2-D-Penicillamine, 5-D-Penicillamine) (DPDPE)		
								Deltorphin II (2-D-Ala), [tyrosyl-3,5-3H]-	delta agonist	NET108
								Diprenorphine [15,16-3H]-	antagonist	NET112
	kappa	G/G <sub>o</sub>	Human	HEK293	Χ		6110558400UA	Diprenorphine, [15,16-3H]-	antagonist	NET112
				CHO-K1	Х	Χ	ES-541-M400UA	U-69,593, [phenyl-3,4- <sup>3</sup> H]-	kappa agonist	NET952
	mu	G/G	Human	CHO-K1	Χ	X	ES-542-M400UA	Diprenorphine, [15,16-3H]-	antagonist	NET112
								Naloxone, [N-allyl-2,3-3H]-	mu antagonist	NET719
								DAMGO, [tyrosyl-3,5-3H(N)]-	mu agonist	NET902
	NOP (ORL1)	G/G	Human	CHO-K1	Χ		6110540400UA	Nociceptin (Tyr14), [125I]-	NOP agonist	NEX338
				HEK293	Χ		RBHORLM400UA	Nociceptin, [leucyl-3,4,5-3H]-	NOP agonist	NET113
Orexin	0X,	G / G 11	Human	CHO-K1	Χ		ES-330-M400UA	Orexin-A, [125]-	OX <sub>1</sub> , OX <sub>2</sub> agonist	NEX367
	0X,	G <sub>0</sub> /G <sub>11</sub>	Human	CHO-K1	Х		ES-331-M400UA	Orexin-A, [1251]-	OX,, OX, agonist	NEX367
Peptide P518	QRFP	G <sub>q</sub> /G <sub>11</sub>	Human	CHO-K1	Х		ES-670-M400UA	ORFP-43, [125] -	QRFP, endogenous	NEX408
replice ( 510	(OX,-like, GPR		Human	CHO-KT	^		LJ-070-WI4000A	QIII -43, [ I]-	QIIIT, endogenous	NLX400
Prokinecitin	PKR,	G,/G,,	Human	CHO-K1	Х		ES-750-M400UA	MIT-1, [125I]-, Bolton-Hunter labeled	PKR,, PKR, antagonist	NEX410
FIORIIIECIUII		4 11							1 2 -	
	PKR <sub>2</sub>	$G_q/G_{11}$	Human	CHO-K1	X		ES-751-M400UA	MIT-1, [1251]-, Bolton-Hunter labeled	PKR <sub>1</sub> , PKR <sub>2</sub> antagonist	NEX410
				HEK293	X		RBHPK2M400UA	- 1 1 - 1 1 - 1 1 - 2 1 1 - 2 2 2 2 2 2		
Prolactin Releasing Peptide		G <sub>q</sub> /G <sub>11</sub>	Human	CHO-K1	Х		ES-480-M400UA	Prolactin-Releasing Peptide (Tyr <sup>20</sup> ), [1 <sup>25</sup> I]-	PRRP agonist	NEX384
Prostanoid	DP <sub>1</sub>	G <sub>s</sub>	Human	1321N1	Х		ES-560-M400UA	Prostaglandin D <sub>2</sub> , [5,6,8,9,12,14,15-3H(N)]-	endogenous	NET61
	DP <sub>2</sub> (CRTH2)	$G/G_{_{0}}$	Human	HEK293	Χ		RBHTH2M400UA	Prostaglandin D <sub>2</sub> , [5,6,8,9,12,14,15-3H(N)]-	endogenous	NET616
				CHO-K1	Х	Х	ES-561-M400UA	Prostaglandin E <sub>2</sub> , [5,6,8,11,12,14,15-3H(N)]-	endogenous	NET428
	EP <sub>2</sub>	$G_s$	Human	HEK293	Χ		ES-562-M400UA	Prostaglandin E <sub>2</sub> , [5,6,8,11,12,14,15-3H(N)]-	endogenous	NET428
	EP <sub>4</sub>	$G_s$	Human	HEK293	Χ		ES-563-M400UA	Prostaglandin E <sub>2</sub> , [5,6,8,11,12,14,15-3H(N)]-	endogenous	NET428
	FP	G <sub>0</sub> /G <sub>11</sub>	Human	1321N1	Х		ES-564-M400UA	Prostaglandin F <sub>2</sub> α, [5,6,8,9,11,12,14,15- <sup>3</sup> H(N)]	endogenous	NET433
	TP	G <sub>0</sub> /G <sub>11</sub>	Human	HEK293 EBNA			RBHTPM400UA	SQ 29548, [5,6-3H]-	TP receptor antagonist	NET936
Drotopce activated								24 522 10/ [2/0 11]	11 receptor untagoriist	1421330
Protease-activated	PAR2	G <sub>q</sub> /G <sub>11</sub>	Human	CHO-K1			Please inquire			
	PAR4	$G_q/G_{11}$	Human	CHO-K1			Please inquire			

# Pu-Va

Receptor type	Subtype	G-protein coupling	Species	Host cell	Binding	GTPγS	Cat. No.	Complementary radioligands	Pharmacological action	Cat. No.
Purinergic P2Y	P2Y <sub>1</sub>	$G_q/G_{11}$	Human	1321N1			Please inquire for m	embrane availability		
	P2Y <sub>2</sub>	$G_q/G_{11}$	Human	1321N1			Please inquire for m	embrane availability		
	P2Y <sub>4</sub>	$G_q/G_{11}$	Human	1321N1			Please inquire for m	embrane availability		
	P2Y <sub>6</sub>	$G_q/G_{11}$	Human	1321N1			Please inquire for m	embrane availability		
	P2Y <sub>11</sub>	$G_q/G_{11}$	Human	1321N1			Please inquire for m	embrane availability		
	P2Y <sub>12</sub>	G <sub>q</sub> /G <sub>11</sub>	Human	CHO-K1			Please inquire for m	embrane availability		
Relaxin	RXFP3	G <sub>I</sub> /G <sub>o</sub>	Human	CHO-K1		X	ES-656-M400UA**	INSL-3, [1251]-	RXFP2, RXFP3 agonist	NEX419
	RXFP4	G/G <sub>o</sub>	Human	CHO-K1		Х	ES-659-M400UA**	INSL-3, [1251]-	RXFP2, RXFP3 agonist	NEX419
Serotonin (see 5-hydro	oxytryptamine)									
Somatostatin	sst <sub>1</sub>	G/G <sub>o</sub>	Human	CHO-K1	Х	Х	ES-520-M400UA	Somatostatin (Tyr <sup>11</sup> ), [1 <sup>25</sup> I]- Somatostatin-14 (Tyr <sup>11</sup> ) (human, recombinant), [1 <sup>25</sup> I]	sst <sub>1</sub> -sst <sub>5</sub> agonist sst <sub>1</sub> -sst <sub>5</sub> agonist	NEX389 NEX446
	SST <sub>2a</sub>	G/G <sub>o</sub>	Human	CHO-K1	Х	Х	ES-521-M400UA	Somatostatin (Tyr <sup>11</sup> ), [1 <sup>25</sup> I]- Somatostatin-14 (Tyr <sup>11</sup> ) (human, recombinant), [1 <sup>25</sup> I]	sst <sub>1</sub> -sst <sub>5</sub> agonist sst,-sst <sub>5</sub> agonist	NEX389 NEX446
	sst <sub>3</sub>	G/G <sub>o</sub>	Human	CHO-K1	Х	Х	ES-523-M400UA	Somatostatin (Tyr <sup>11</sup> ), [ <sup>125</sup> I]-	sst <sub>1</sub> -sst <sub>5</sub> agonist	NEX389
	3313	0,00	Trainian	CHO KI	Α.	,	E3 323 W 1000/1	Somatostatin (171"), [1") (human, recombinant), [125]	sst <sub>1</sub> -sst <sub>5</sub> agonist	NEX446
	sst <sub>4</sub>	G/G <sub>o</sub>	Human	HEK293 EBNA	Χ		RBHST4M400UA	Somatostatin (Tyr <sup>11</sup> ), [ <sup>125</sup> I]-	sst,-sst, agonist	NEX389
	4	1 0		CHO-K1	Χ	X	ES-524-M400UA	Somatostatin-14 (Tyr <sup>11</sup> ) (human, recombinant), [ <sup>125</sup> I]	sst <sub>1</sub> -sst <sub>5</sub> agonist	NEX446
	sst <sub>s</sub>	G/G <sub>o</sub>	Human	HEK293 EBNA	Χ		RBHST5M400UA	Somatostatin (Tyr <sup>11</sup> ), [ <sup>125</sup> I]-	sst,-sst, agonist	NEX389
	,	1 0		CHO-K1	Χ	X	ES-522-M400UA	Somatostatin-14 (Tyr <sup>11</sup> ) (human, recombinant), [ <sup>125</sup> I]	sst <sub>1</sub> -sst <sub>5</sub> agonist	NEX446
Tachykinin	NK <sub>1</sub>	$G_q/G_{11}$	Human	UC11	X		6110551400UA*	Substance P (Iys³), [125I]-, Bolton-Hunter labeled Substance P (Tyr³), [125I]- Substance-P (Sar², 11-Met(O <sub>2</sub> )), [2-prolyl-3,4-3H]- Hemokinin-1, [125I]-, Bolton-Hunter labeled	NK <sub>1</sub> agonist NK <sub>1</sub> agonist NK <sub>1</sub> agonist NK <sub>1</sub> agonist	NEX190 NEX152 NET102 NEX414
								Substance P, [leucyl-3,4,5-3H(N)]- Substance P, [3H]	NK <sub>1</sub> agonist NK1 endogenous	NET111 NET102
	NK <sub>2</sub>	$\mathrm{G_q/G_{11}}$	Human	CHO-K1	Χ		ES-251-M400UA	SR 48968, [benzamide-4-³H]-	NK <sub>2</sub> antagonist	NET107
								Eledoisin (Lys <sup>4</sup> ), [ <sup>125</sup> I]-, Bolton-Hunter labeled Neurokinin A, [ <sup>125</sup> I]-, ([ <sup>125</sup> I]-Substance K, [ <sup>125</sup> I]-NKA)	NK <sub>2</sub> , NK <sub>3</sub> agonist	NEX218 NEX252
	- NIV	C IC	Human	CHO K1	Х		EC 3E3 MADOUA	Eledoisin (Lys <sup>4</sup> ), [1251]-, Bolton-Hunter labeled	NK <sub>2</sub> agonist	
	NK <sub>3</sub>	$G_q/G_{11}$	Human	CHO-K1	٨		ES-252-M400UA	Neurokinin B (MePhe <sup>7</sup> ), [ <sup>125</sup> I]-, ([ <sup>125</sup> I]-NKB)	NK <sub>2</sub> , NK <sub>3</sub> agonist NK <sub>3</sub> agonist	NEX218 NEX285
								Senktide, [phenylalanyl-3,4,5-3H]-	NK <sub>3</sub> agonist	NET997
								SR142801, [³H]	NK <sub>3</sub> agonist	NET118
Thyrotropin Releasing Hormone	TRH <sub>1</sub>	G <sub>q</sub> /G <sub>11</sub>	Human	CHO-K1	Х		ES-700-M400UA	Thyrotropin Releasing Hormone (3-Methyl-histidine <sup>2</sup> ), [L-histidyl-4- <sup>3</sup> H(N)]-	TRH agonist	NET705
								Thyrotropin Releasing Hormone (His²), [1251]-	TRH agonist	NEX153
Urotensin U	JT (Uro II, GPR14)	$G_q/G_{11}$	Human Rat	CHO-K1 CHO-K1 CHO-K1	X		ES-440-M400UA Please inquire for management of the RBMUR2M400UA	Urotensin II (human), [ <sup>125</sup> l-Tyr9]- embrane availability	endogenous	NEX379
Vasoactive Intestinal Peptide	PAC <sub>1</sub> (PACAP)	G <sub>s</sub>	Mouse	CHO-K1	٨	Ī	Please inquire	PACAP 27, [125]]-	PAC <sub>1</sub> , endogenous	NEX294
•	VPAC, (VIP)	G <sub>s</sub>	Human	HT29	Χ		RBHVIPM400UA*	Vasoactive Intestinal Polypeptide, [1251]-	VPAC <sub>1</sub> , endogenous	NEX192
	VPAC <sub>2</sub>	G,	Human	CHO-K1			Please inquire	Vasoactive Intestinal Polypeptide, [1251]-		
Vasopressin	V <sub>1A</sub>	$G_q/G_{11}$	Human	HEK293	Х		RBHV1AM400UA	Vasopressin (linear), V1A antagonist (Phenylacetyl1, 0-Me-D-Tyr², [¹²⁵l-Arg⁶]-)	V1A antagonist	NEX310
				1321N1	Χ		ES-361-M400UA	Vasopressin, 8-arginine, [phenylalanyl-3,4,5-3H(N)]-	endogenous	NET800
	V <sub>1B</sub>	G <sub>q</sub> /G <sub>11</sub>	Human	CHO-K1	Χ		6110543400UA	Vasopressin, 8-arginine, [phenylalanyl-3,4,5-3H(N)]-	endogenous	NET800
	:=			HEK293	Χ		RBHV1BM400UA			
				1321N1	Χ		ES-362-M400UA			
			Rat	CHO-K1	Х		ES-360-M400UA			
	$V_2$	$G_s$	Human	CHO-K1	Χ		6110541400UA	Vasopressin, 8-arginine, [phenylalanyl-3,4,5-3H(N)]-	endogenous	NET800
				1321N1	Χ		ES-363-M400UA			

Receptor type	Subtype	G-protein coupling Species	Host cell	Binding	GTPγS	Cat. No.	Complementary radioligands	Pharmacological action	Cat. No.
Tyrosine Ki	inase Re	ceptors							
Epidermal Growth Fa		• Human	A431	Χ		RBHEGFM400UA*	Epidermal Growth Factor (murine), [1251]-	endogenous	NEX160
							Epidermal Growth Factor (human), [1251]-	endogenous	NEX428
Transporte	rs								
Dopamine	n.a.	Human	CHO-K1	Χ		RBHDATM400UA	WIN 35428, [N-methyl-3H]-	Uptake inhibitor	NET1033
							RTI-55, [125I]-	Uptake inhibitor	NEX272
							RTI-121, [125]]-	Uptake inhibitor	NEX318
							Cocaine, levo-[benzoyl-3,4-3H(N)]-	Uptake inhibitor	NET510
							Mazindol, [4'-³H]-	Uptake inhibitor	NET816
							GBR 12935, [propylene-2,3-3H]-	Uptake inhibitor	NET918
							Methyl-4-phenylpyridinium acetate,	Uptake inhibitor	NET914
							$[N-methyl-^3H]-$ , $(MPP(+))$		
Norepinephrine	n.a.	Human	MDCK	Χ		RBHNETM400UA	Nisoxetine hydrochloride, [N-methyl- <sup>3</sup> H]-	Uptake inhibitor	NET1084
							Desmethylimipramine hydrochloride,	Uptake inhibitor	NET593
							[benzene ring, 10,11-3H]-		
Serotonin	n.a.	Human	HEK293	Χ		RBHSTM400UA	Imipramine hydrochloride, [benzene ring-3H(N)]-	Uptake inhibitor	NET576
							Paroxetine, [phenyl-6'-3H]-	Uptake inhibitor	NET869
							Citalopram, [N-methyl-3H]-	Uptake inhibitor	NET1039
Ion Channe	els								
hERG	K+ channe	Human	HEK293	Χ		RBHERGM400UA	BeKm-1 (Tyr <sup>11</sup> ), [ <sup>125</sup> l]-	ERG blocker	NEX412
							Astemizole, [O-methyl- <sup>3</sup> H]-	ERG blocker	NET1140
Nicotinic	n.a.	Human	IMR32	Х		RBHNICM400UA*	Epibatidine, [1251]-, ([1251]-IPH)	CNS, skeletal muscle	NEX358
								and autonomic ganglior	n activator
							(+/-)-Epibatidine, [5,6-bicycloheptyl-3H]-	CNS, skeletal muscle	NET1102
								and autonomic ganglior	n activator
							Choline chloride, [methyl-3H]-		NET109
							A-85380, [1251]-	Neuronal CNS	NEX413
								alpha4 beta2	
							$\alpha$ -Bungarotoxin (Tyr <sup>54</sup> ), [125]-	Neuromuscular blocker	NEX126
							Cytisine hydrochloride, [3,5-3H(N)]-	CNS activator	NET1054
							Nicotine, L-(-)-[N-ethyl- <sup>3</sup> H]-	CNS activator	NET827
Serotonin	5-HT <sub>3</sub>	Human	HEK293	Х		RBHS3M400UA	GR 65630, [N-methyl- <sup>3</sup> H]-	5-HT <sub>3</sub> blocker	NET1011
							BRL-43694, [9-methyl-3H]-	5-HT, blocker	NET1030

# Wild-type membranes

Receptor type	Subtype	Species	Host cell	Cat. No.
1321N1 cells	Wild Type Control Membranes	Human	1321N1	RBH1321M010MG
A9 cells	Wild Type Control Membranes	Mouse	A9	RBMA9M010MG
CHO-K1 cells	Wild Type Control Membranes	Hamster	CHO-K1	RBCCHOM010MG
HEK293 cells	Wild Type Control Membranes	Human	HEK293	RBHHEKM010MG
K562 cells	Wild Type Control Membranes	Human	K562	RBHK56M010MG
THP-1 cells	Wild Type Control Membranes	Human	THP-1	RBHTHPM010MG
U373 cells	Wild Type Control Membranes	Human	U373	RBHU37M010MG

 $<sup>{}^{\</sup>star}\text{Non-recombinant, membrane preparation}$ 

<sup>\*\*</sup> GTPγS data only

# **Ordering Information**

#### To Place an Order/Payment Options/Product Availability & Delivery

We invite you to visit our website at www.perkinelmer.com. From our home page you can access products, promotions, news, support, your online shopping account and more.

# To Place an Order

#### To order online:

Visit www.perkinelmer.com/shop or see our convenient online ordering guide on p.173.

# By telephone, fax or mail: In the USA

PerkinElmer 710 Bridgeport Avenue Shelton, CT 06484-4794 USA

Telephone: 1-800-762-4000 or 203-925-4602

Fax: 203-944-4904

Mail: Send your purchase order to M/S 270 at the address above.

E-mail: LAS.Sales@perkinelmer.com

Customer Care Representatives are available to take your order or answer your questions from 8 a.m. until 8 p.m. EST. U.S. orders for same-day shipments of <sup>32</sup>P, <sup>33</sup>P, and <sup>35</sup>S nucleotides can be accepted until 5 p.m. EST.

# Outside the USA

To place or inquire about an order outside the USA, consult the list of worldwide sales offices listed at www.perkinelmer.com/ contactus.

### To process your order, please be prepared to provide the following information:

- Customer account number
- Billing and shipping addresses
- Name and phone number
- Purchase order number or credit/purchasing card number and expiration date
- Product ordering code, quantity, size, and unit of measurement Standing (Recurring) Orders being ordered
- Special shipping information required by your institution (researcher's name, permit number, etc.)
- Special packaging or fresh lot scheduling required
- Any other special shipping or delivery requirements

# **Payment Options**

For your convenience, PerkinElmer accepts MasterCard® and Visa® in Canada, Europe, the United States and other select countries. We accept American Express, but only in the United States. Please ask your Customer Care Representative for more information or consult the website.







\*We accept Amerian Express only in the United States at this time

# **Product Availability & Delivery**

Your Customer Care Representative can provide you with up-to-date information on product availability, including radiochemical products manufactured on a fresh lot schedule.

#### Regularly Stocked Items

Most reagent and consumable orders are shipped the same business day or the next business day depending on time of order placement. Delivery of products depends on your country. Check with your Customer Care Representative for more information on delivery times.

Please let your Customer Care Representative know if you require expedited delivery service, or need additional shipping information.

PerkinElmer is committed to delivering your order as guickly as possible. Our products are shipped in the safest, most advanced, DOT-approved packaging available. PerkinElmer reserves the right to choose the best way of shipping.

PerkinElmer reserves the right to make changes in its product offering at any time and without prior notice. Please visit www.perkinelmer.com for the most up-to-date product information.

It's easy to set up recurring orders for your most frequently used reagents and consumables. Your products will automatically arrive on a weekly, monthly, semi-monthly, or other recurring basis as you need them, with no further action required from you. You'll save the time of reordering—and get added savings too.

- Prices on a standing order of the same product with at least two designated ship dates will be guaranteed for up to 12 months from the first ship date.
- Standing orders can be set up online at www.perkinelmer.com/shop or through your Customer Care Representative.

#### **Special Requests**

We will make every effort to accommodate your specific shipping or packaging requirements. Additional charges may apply. Orders with special packaging usually require an additional seven to ten business days to fulfill. If you require special packaging, discuss your requirements with a Customer Care Representative when placing your order. Please provide:

- Catalog number, product name, unit of measure and number of packages
- Special requirements (specific activity, solvent concentration, type and size of special containers)
- Specific delivery time requirements (if any)

# **Changes or Cancellations**

All cancellations and change requests should be made as soon as possible through Customer Service. Our ability to meet your request will be dependent upon the type of product ordered and the timing of your request.

# **Regularly Stocked Items**

Most reagent and chemical orders may be canceled or changed at no charge by contacting Customer Service at least 24 hours prior to the scheduled shipping date.

We will attempt to accommodate changes or cancellations received on less than 24-hours notice. A processing fee equivalent to US \$30.00 may be charged for any order that is cancelled or changed on the day of shipment.

# **Specially Packaged Items**

Please cancel at least 48 hours prior to scheduled shipping to avoid charges. 50% of the purchase price on specially packaged orders will be invoiced for orders canceled on less than 48 hours notice.

#### Other Items

More than 48-hours notice is required to cancel orders for short-lived radionuclides, packaged-to-order radionuclides, and microspheres. Please cancel your order at least 48 hours prior to scheduled shipping to avoid charges.

# **Product Inspection, Credits & Returns Product Inspection**

Upon receipt of product, please examine the packing slip, product labeling, and technical data sheets (inside the package) for content. Any discrepancies between these documents should be reported to a Customer Care Representative immediately. If you do not receive your package by the expected date or time, please check with your receiving or radiation safety departments before calling PerkinElmer.

#### Credits

PerkinElmer will either credit your account or replace the shipment of product if your order was incorrectly filled by PerkinElmer or the product does not meet PerkinElmer published specifications and you notify PerkinElmer and return the product (if required) to us within 30 days.

Credit or replacement cannot be authorized beyond 30 days of your receipt of the product.

#### Returns

Please do not return shipments without prior authorization. Due of the nature of our products, some products may not be returned while others require very specific return procedures.

You must obtain a return authorization number and instructions for returning the product from PerkinElmer Customer Care before returning any item. All products must be returned in their original packaging and condition.

A 25% restocking fee will be applied to any product returned due to a buyer's ordering error. In instances where a reagent precursor material has been secured to satisfy an order, a 50% restocking charge will apply. Restocking charges may apply for other return shipments. In all cases, you will be advised of these terms before PerkinElmer acquires the material. All products authorized for return must be received at the indicated PerkinElmer facility within 30 days.

#### Enhanced NEN Radiochemicals Product Labeling Makes Reorder Easier than Ever

Our NEN Radiochemicals product labeling system includes barcodes and extended product numbers on container labels and Technical Data sheets that clearly identify the particular size that you have received. For example, the 1 mCi size of Adenosine 5'-triphosphate, [ $\gamma$ -33P]-, NEG602H, will be labeled as NEG602H001MC, where 001MC refers to 1 mCi.

This guide utilizes these extended product numbers to make it easy for you to order, either online or by telephone. Alternatively, simply check the label on the container of the product you want to reorder for your lab, and use that exact (extended) product number. You'll be sure to get the right size every time you order!

# Order Online-It's Fast, Simple & Convenient

Order online from PerkinElmer and take full control of your purchasing process. Choose from thousands of reagents, consumables and laboratory supplies, including NEN radiochemicals.

- Quick registration available by clicking "login"
- Easy to use product search features
- Customer-specific pricing
- Order history and tracking
- Email confirmations
- Place standing orders
- Place several purchase orders in one screen
- Save frequently ordered items to your favorites list



# Online ordering is currently available in the locations below. Please follow the simple registration process at the URL indicated for your country to start shopping!

Australia www.perkinelmer.com/au

Austria www.perkinelmer.at

Belgium www.perkinelmer.be

Canada www.perkinelmer.ca

Denmark www.perkinelmer.dk

Finland www.perkinelmer.fi

France www.perkinelmer.fr

Germany www.perkinelmer.de

Ireland www.perkinelmer.ie

Italy www.perkinelmer.it

Luxembourg www.perkinelmer.lu

Netherlands www.perkinelmer.nl

Norway www.perkinelmer.no

Spain www.perkinelmer.es

Sweden www.perkinelmer.se

Switzerland www.perkinelmer.ch

United Kingdom www.perkinelmer.co.uk

United States www.perkinelmer.com

For PerkinElmer's full offering of online ordering services, please visit www.perkinelmer.com/shop or see www.perkinelmer.com/online for more online ordering information.

If you require additional assistance with online ordering, contact our team of online specialists at web@perkinelmer.com.

# Register and Order – 3 Easy Steps

# step 1: Quick Registration



Use the quick registration feature to view detailed information and pricing for our products:

- Click "Login" at the top right to register
- Three pieces of information required: Country, E-mail address, Password
- Include your account number to view your customer-specific pricing and to confirm shipping/billing addresses

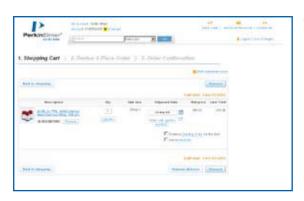
# step 2: Find Your Product



There are two ways to find your product:

- In the Search field on the top of each screen
  - Enter full or partial product number
  - Enter product name or description
- In the Shop by Product Number screen
  - Enter full product number
  - Enter partial product number, web will offer potential matches

# step 3: Go To Shopping Cart



Our simple, quick and easy checkout process offers:

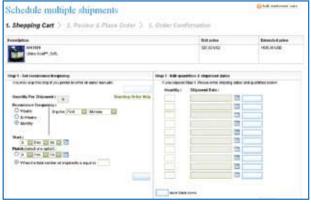
- Customer-specific pricing
- Real-time product availability
- Shipping and Billing attention
- Special order instructions
- Both Purchase Order and Credit Card accepted
- Choose your own ship date

# **PerkinElmer Shop Online Features**



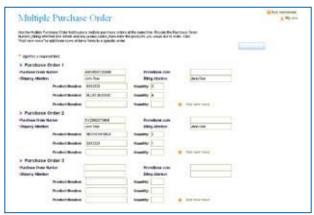
#### **Build a Favorites List**

Make ordering even easier by creating a "Favorites" list of items you order frequently. You can add products from any product page, past orders or from your Shopping Cart by clicking on "add to favorites". To order one or more items from this list, click on "Favorites" from the Home Page or the My Account page to make your selections.



Set up a Standing Order online for items that need constant replenishing. Choose the order frequency as weekly, monthly, etc, and our standing order tool can automatically calculate your shipping dates. You can also pick the specific dates of shipment if you wish, so you can fully customize the delivery schedule for the order. You will receive an e-mail notification each time an order ships.

Plan your shipments in advance with the standing order feature.



Place Multiple Purchase Orders at Once

Set Up Standing (Recurring) Orders

For customers who place several orders in one day, we have developed a Multiple Purchase Order tool. Place up to 7 orders on the same account at once. For each purchase order, you need only to indicate the shipping attention, PO number, and the item number, to quickly complete all your ordering in one screen.

Order faster with the Multiple Purchase Order feature

# Attention Purchasing Professionals & Radiation Safety Officers

At PerkinElmer, we are passionate about streamlining orders and the ordering process so that you can be as efficient as possible. We've designed our online shopping experience with direct input from purchasing and radiation safety professionals from around the globe. We make certain there is no compromise of the necessary safeguards for ordering radiochemicals and other reagents or consumables online. Be sure with PerkinElmer! For more information or assistance with online ordering, please e-mail web@perkinelmer.com.

### **Methods of Payment**

Pay the way you like! Our online ordering site accepts payment by Purchase Order and major credits cards.







<sup>\*</sup>We accept Amerian Express only in the United States at this time

# **PerkinElmer Shop Online Features**

### **Shopping Cart Approval**

Radiation Safety Officers and Purchasing Agents can maintain control of radioactive site limits with

PerkinElmer's Shopping Cart Approval. A designated approver can monitor and approve end-user orders before they are received and processed by PerkinElmer.

# **Shipping Information**

Customize each order's shipping information by including information in the following fields:

- Attention/Recipient- specify a name or room number on the shipping label
- Special Shipping Instructions communicate any special requests directly to customer care
- Internal Delivery Instructions additional information for your receiving department such as building and lab number, to be printed on the shipping paperwork
- Our online ordering software automatically identifies radiochemical authorized shipping locations, and will prevent radiochemicals from being shipped to non-authorized locations. For you convenience, a radioactive symbol with be displayed at the top of the screen for authorized accounts.

# **Order Confirmation**

When your order is complete, a confirmation of your order and shipping information will be displayed. You will also receive an e-mail confirmation for your records. As you place your order, you may add additional addresses for other individuals who might require this confirmation.

# **Shipping Confirmation**

Once an order has been shipped, an e-mail confirmation is generated by PerkinElmer, confirming the date of the shipment, its contents, and the location to which the shipment was sent. Tracking details are also provided for your reference, where available.

# **Order History**

You can login to your online account to check on past orders that were placed online, or by phone or fax. Search by order confirmation number, your purchase order number, or within a specified date range. Carrier and tracking information is also available here.

#### **Contact Us**

Questions? Our knowledgeable Customer Care Representatives are ready to help Monday through Friday, from 8:00 a.m. to 8:00 p.m. EST.

By Phone: U.S.1-800-762-4000,

By Email: customercareUS@perkinelmer.com.

For other countries, contact your local Customer Care department. For contact details, please go to www.perkinelmer.com/contactus.

Online Ordering Specialists can be reached at web@perkinelmer.com.

For more information on online ordering, please visit www.perkinelmer.com/online.

#### **E-Procurement Capabilities**

Does your organization use an internal purchasing system, or have special needs that require more attention to detail? Our experienced Technology Team is ready to help support your specific purchasing needs through a variety of solutions, including:

- Receipt to invoice delivery
- Specific capabilities
- SciQuest, Ariba, Oracle, SAP, PeopleSoft and other custom solutions
- cXML, xCBL, XML and OCI

Contact us at ebusiness@perkinelmer.com to discuss your ordering and invoicing needs.

# Terms & Conditions of Sale

#### 1. PARTIES.

"Buyer" as used herein means you as purchaser of the products. "PERKINELMER" as used herein means PerkinElmer LAS, Inc. together with its affiliated companies.

#### 2. PRICING AND TERMS.

PERKINELMER reserves the right to delete or change specifications, including price, at any time without notice. Notwithstanding the foregoing, prices on standing orders (an order with two or more predetermined ship dates of the same product and vial size) with designated shipping dates will be guaranteed for up to 12 months from the first ship date. Payment terms are due upon receipt.

# 3. SHIPPING AND HANDLING.

Products are shipped F.O.B. shipping point and all risk of loss or damage to products in transit is upon Buyer. Shipping charges are prepaid and added to Buyer's invoice. PERKINELMER may ship partial orders unless Buyer expressly provides otherwise in its purchase order. Additional charges may apply to accommodate special shipping and/or packaging requirements that deviate from PERKINELMER standard practices.

### 4. CHANGES OR CANCELLATION.

Orders for regularly stocked items may be cancelled at no charge provided that PERKINELMER receives notice at least 24 hours before the date of scheduled shipment. Orders that require special packaging must be cancelled at least 48 hours before the date of scheduled shipment, otherwise PerkinElmer may invoice you a 50% restocking fee. Cancellations after the order is shipped may be subject to a 25% restocking fee. Additions to an order after processing and shipping may be subject to additional freight and ice charges.

# 5. RETURNS AND CREDITS.

In order to facilitate processing, products may not be returned without prior authorization. To return damaged or incomplete products, please contact a PERKINELMER Customer Service Representative within 48 hours of receiving the product to obtain a return authorization number and instructions for returning the goods. There will be a 25% processing fee on all goods returned due to Buyer's ordering error.

# 6. PERMITTED USE OF PRODUCT.

Buyer shall use the products for research purposes only, and shall not use the products for any other purposes, including, without limitation, in foods, cosmetics, drugs, biologics, or medical devices for humans or animals. Buyer shall not (i) transfer, sell or otherwise distribute the products to any third party, whether alone or in combination with other materials, (ii) modify the products for resale, or (iii) use the products to manufacture commercial products, without prior written approval from PERKINELMER. Buyer also shall comply with any instructions or other limitations furnished by PERKINELMER relating to use of the products and not misuse the products in any manner. No license or immunity under any patent is either granted or implied by the sale of any of PERKINELMER's products. PERKINELMER disclaims any and all responsibility for any injury or damage which may be caused by the failure of Buyer or any other person to use these products in accordance with the conditions outlined herein

# 7. LIMITED WARRANTY; LIMITATION OF LIABILITY.

PERKINELMER products are warranted to meet PERKINELMER product specifications in effect at the time of shipment. Notice of nonconforming products must be made to PERKINELMER within 30 days of receipt of the product or within the half-life of the radioisotope contained within the product, whichever period is shorter. This product warranty limits PERKINELMER's liability to, at PERKINELMER's sole option, replacement of the product or refund of the invoice price of the product. This warranty applies to all PERKINELMER sales, including sales within and outside the United States. This limited warranty shall not extend to anyone other than the original purchaser of the product. This limited warranty is the sole and exclusive warranty and sets forth the exclusive remedies for all products and is in lieu of all other warranties. PERKINELMER MAKES NO OTHER WARRANTIES, WHETHER EXPRESSES OR IMPLIED, WITH RESPECT TO THE PRODUCTS, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, OR THAT SUCH PRODUCTS MAY BE EXPLOITED WITHOUT INFRINGING THE PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS OF ANY THIRD PARTIES. PERKINELMER shall not be liable to Buyer, nor shall PERKINELMER be responsible for indemnifying Buyer, for use by Buyer of the products. PERKINEL-MER SHALL BE UNDER NO LIABILITY WHATSOEVER TO BUYER (WHETHER SUCH LIABILITY ARISES FROM A CLAIM BASED ON CONTRACT, WARRANTY, TORT OR OTHERWISE) FOR ANY EXPENSE, LOSS, DAMAGE OR INJURY OF ANY KIND (INCLUD-ING, WITHOUT LIMITATION, ANY LOSS OF PROFIT, LOSS OF USE, OR DIRECT, INDIRECT, PUNITIVE, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO, LOSS OF RESEARCH OR DEVELOPMENT, ANTICIPATED PROFITS OR OTHER ECONOMIC LOSS, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES) SUSTAINED BY BUYER OR ANY THIRD PARTY ARISING OR INCURRED IN CONNECTION WITH THE PROVISION, USE OR PERFORMANCE OF THE PRODUCTS. IN NO EVENT SHALL PERKINELMER'S LIABILITY FOR ANY CLAIM (WHETHER BASED ON CONTRACT, WARRANTY, TORT OR OTHERWISE) ARISING IN CONNECTION WITH THE PROVISION, USE OR PERFORMANCE OF THE PRODUCTS EXCEED THE PURCHASE PRICE PAID BY BUYER FOR SUCH PRODUCTS.

# 8. STERI-PACKAGED PRODUCT.

Products described as being supplied as "Steri-packaged" are prepared with additional precautions to substantially reduce product bioburden and enhance product stability. PERKINELMER MAKES NO WARRANTIES, WHETHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE STERILITY OR NON-PYROGENICITY OF THESE OR ANY PRODUCTS.

# 9. ACCEPTANCE; MODIFICATION OF TERMS.

Buyer's assent to these Terms and Conditions of Sale shall be conclusively presumed from Buyer's submission of its purchase order. No addition to or modification of said Terms and Conditions of Sale shall be binding upon PERKINELMER unless specifically agreed to by an authorized representative of PERKINELMER in writing. If Buyer's purchase order or other correspondence contains terms or conditions contrary to or in addition to the terms and conditions contained herein, acceptance of any order by PERKINELMER shall not be construed

as assent to such contrary or additional terms and conditions or constitute a waiver by PERKINELMER of any of the terms and conditions contained herein. PERKINELMER's acceptance of Buyer's purchase order is expressly conditioned on Buyer's assent to these Terms and Conditions of Sale.

### 10. GOVERNING LAW: VENUE.

These Terms and Conditions of Sale shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts, without regard to the conflicts of law principles thereof. Any disputes relating to these Terms and Conditions of Sale shall be adjudicated in the state or federal courts in the Commonwealth of Massachusetts, and Buyer hereby consents to the exclusive jurisdiction of such courts for purposes of any such litigation.

# Regulations Concerning the Commercial Use of Research Products

The research products listed in this catalog are intended for research and development or laboratory use only. Within the United States, their use for other commercial purposes is prohibited under the Toxic Substance Control Act (TSCA) unless all chemicals in a particular product are listed on the TSCA Inventory or until a Premanufacturing Notice (PMN), submitted by PerkinElmer for each chemical not so listed, is approved by the Environmental Protection Agency (EPA). The research status of our products is stated on each Technical Data sheet and on each product label. For assistance in determining permitted uses of these products (other than for research or analysis), please contact the PerkinElmer Technical Support Group. Comparable regulations exist in many countries, such as the EINECS Register in the European Union.

For tritium gas orders, please notify PerkinElmer in advance so that special licensing requirements can be fulfilled.

# **Radioactive Materials**

In most areas of the world, the possession and use of radioactive materials are regulated by law, and purchasers must possess a license issued by a governmental regulatory authority. In addition, users of radioactive materials may be subject to local and institutional regulations. We strongly recommend, therefore, that investigators familiarize themselves with all applicable regulations. Compliance with institutional, local, state, and national regulations concerning the procurement and use of radioactive materials is the responsibility of the purchaser.

#### U.S. Federal Regulations

Within the United States, the use and possession of by-product radioactive materials are governed by regulations issued by the U.S. Nuclear Regulatory Commission (NRC).

#### U.S. State Regulations

Information concerning the name and address of the appropriate regulatory agency in any of the states listed here or in New York City can be obtained from:

U.S. Nuclear Regulatory Commission Office of State and Tribal Programs Washington, DC 20555

The Atomic Energy Act permits the NRC to transfer by specific agreement some of its regulatory authority to states that have established agencies for the control of radioactive materials. Agreement States that have assumed control as of January 2006 are Alabama, Arizona, Arkansas, California, Colorado, Florida, Georgia, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Mississippi, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, Tennessee, Texas, Utah, Washington and Wisconsin. The city of New York has also assumed control of radioactive materials.

The states of Delaware, New Jersey, Pennsylvania, Hawaii, Minnesota and Virginia issue specific licenses to cover both

possession and use of naturally-occurring and accelerator-produced radioactive material (NARM). Consequently, users of NARM in these states will, in general, require two licenses. The states of Indiana and Alaska require PerkinElmer to verify requisitions of NARM prior to shipment. The states of Connecticut and Idaho as well as the District of Columbia require a report of NARM shipped on a monthly basis. States of Vermont and Michigan require users of NARM to register.

#### **European Union**

In the European Union, regulation is based on Council Directive 80/836/Euroatom, as amended. Users are responsible to comply with those amendments; contact local authorities.

# Special Regulations Concerning Pharmaceutical Use of Radioactive Materials

Radioactive materials listed in this catalog are intended for laboratory use. Purchasers intending to use radioactive materials in pharmaceutical applications are cautioned that federal and state law strictly limit such usage and that the NRC, Agreement States, and the U.S. Food & Drug Admini-stration (FDA) have jurisdiction over certain applications. Researchers or physicians in the United States who intend to employ any radioactive materials in humans must hold a valid license from either the USNRC under 10 CFR Part 35, or from an Agreement State, authorizing the human use of NARM and/or by-product material.

#### Research Studies in Humans

Research studies in humans using radioactive materials generally must be conducted under a Notice of Claimed Investigational Exemption for a New Drug (IND) in accordance with 21 CFR 312 or under cognizance of a Radioactive Drug Research Committee (RDRC) in accordance with 21 CFR 361. The Food Drug and Cosmetic Act also permits licensed medical practitioners and pharmacists to prepare drugs for use in the course of their specific practice, independent of the above types of investigational studies.

A physician or pharmacist administering or preparing a radioactive substance for human use bears all responsibility for its safety, efficacy and pharmaceutical quality, including its sterility and non-pyrogenicity.

Prior to shipment of radioactive materials with potential human use, PerkinElmer requires acknowledgement of intended use and of the circumstances described above, if applicable. A Clinical Application Statement will be provided for this acknowledgement. If the intended use is in humans, PerkinElmer requires additional certification and indemnification.

In Europe, the Middle East, and Africa, the use of substances for medicinal applications is covered by national regulations and/or EU Regulation No. 2309/93 (EEC).

#### **Narcotics & Dangerous Drugs**

Narcotics and non-narcotics offered for sale in this catalog have been classified by the U.S. Drug Enforcement Administration (DEA) as exempt chemical preparations, and thus do not require submission of a DEA-222 form prior to shipment.

Narcotics and psychotropic substances are regulated under the United Nations' International Narcotics/Psychotropics Control Board. National regulations exist to control their possession, use and distribution. Users are responsible to follow those regulations applying to them and to inform PerkinElmer in case they request custom preparations of such substances or containing such substances.

# **Dangerous Substances & Preparations**

In Europe, the Middle East, and Africa, national regulations may require you to announce use/handling of dangerous substances classified with special hazards to local authorities. Please review the Safety Data Sheet which is mailed to you with or before the first delivery of such a product.

# **Technical Support**

# **Radiometric Detection Technical Support**

Technical Support is always available for you to answer your product and technology questions. Our specialists have dozens of years of experience working on all aspects of radiochemical detection development, manufacturing and applications, using the best handling and safety practices in the industry.

# **Contact information:**

# By Phone

North America: 800-762-4000 prompts 3, 2

Europe: +00 800 33290000

Asia Pacific regions, including Australia: 800 820 5046 option 7

# By Email

Global.techsupport@perkinelmer.com

Also, visit our on-line Assay Support Knowledge Base at: www.perkinelmer.com/ask

