TECHNICAL DATA SHEET

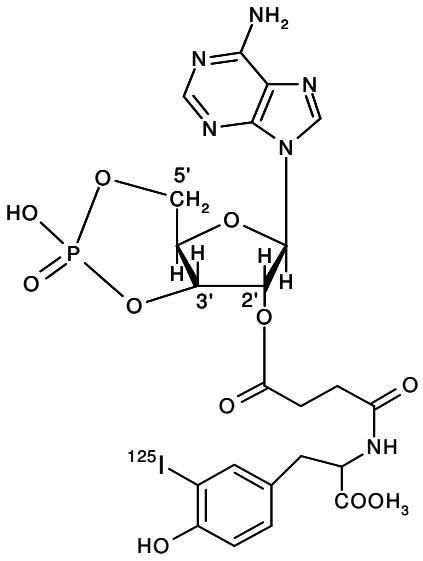
^{125}I

Caution: For Laboratory Use. A product for research purposes only

Adenosine 3',5'-cyclic phosphoric acid, 2'-O-succinyl [^{125}I]-iodotyrosine methyl ester

[^{125}I]-Cyclic AMP

Product Number: NEX130



LOT SPECIFIC INFORMATION

CALCULATED AS OF: 7-Nov-2011

LOT NUMBER: BIB0910

SPECIFIC ACTIVITY:
81.4 TBq/mmol
2200 Ci/mmol
111 MBq/µg
3000 µCi/µg

CONCENTRATION:
1.21 MBq/ml
32.67 µCi/ml

Package Size Information

Package Size as of 9-Dec-2011	Volume
37 kBq 1 µCi	0.05 ml
185 kBq 5 µCi	0.25 ml
370 kBq 10 µCi	0.50 ml
1.85 MBq 50 µCi	2.50 ml

RADIOCHEMICAL PURITY: ≥ 95%

MOLECULAR WEIGHT: ~730

PACKAGING: [^{125}I]-Cyclic AMP is in a solution containing n-propanol:0.02M sodium acetate, pH 6.0, 1:1. It is shipped ambient.

STABILITY AND STORAGE: [^{125}I]-Cyclic AMP should be stored at 4°C or lower. It should be aliquoted into appropriate volumes to avoid repeated freeze-thaw cycles. Under these conditions, the product is stable and usable for at least four weeks after fresh lot date.

SPECIFIC ACTIVITY: The initial specific activity of [^{125}I]-Cyclic AMP is 2200 Ci/mmol (81 TBq/mmol), 3000 µCi/µg (111 MBq/µg). Preparative HPLC is used to separate unlabeled 2'-*O*-monosuccinyladenosine 3',5'-cyclic monophosphate tyrosyl methyl ester from [^{125}I]-Cyclic AMP. Upon decay, [^{125}I]-Cyclic AMP undergoes decay catastrophe and the specific activity remains constant with time. However, it is not known what molecular fragments are generated from the decay event or what functional activity these fragments may have in different assays. References on ^{125}I decay and decay catastrophe of ^{125}I labeled compounds are available.[1-5]

RADIOCHEMICAL PURITY: Initially greater than 95% radiochemically pure as determined by HPLC.

PREPARATIVE PROCEDURE: 2'-*O*-monosuccinyladenosine 3',5'-cyclic monophosphate tyrosyl methyl ester is radioiodinated with no carrier added ^{125}I using a modification of the Hunter and Greenwood method[6] and purified by reversed phase HPLC.

AVAILABILITY: [^{125}I]-Cyclic AMP is routinely available from stock and is prepared fresh and packaged for shipment on the first Monday of each month. Please inquire for larger package sizes.

HAZARD WARNING: This product contains a chemical (s) known to the state of California to cause cancer. This product also contains a component which is harmful by contact, ingestion and inhalation. It is irritating to the eyes, skin and respiratory tract., is toxic and flammable. Target organs are the eyes, central nervous system, kidneys and liver.

RADIATION UNSHIELDED: 280mR/hr/mCi at vial surface.

REFERENCES:

1. Doyle, V.M., Buhler, F.R., Burgisser, E., *Eur. J. Pharm.* 99 353 (1984).
2. Schmidt, J., *J. Biol. Chem.* 259 1160 (1984).
3. Loring, R.H., Jones, S.W., Matthews-Bellinger, J., Salpeter, M.M., *J. Biol. Chem.* 257 1418 (1982).
4. Berridge, M.S., Jiang, V.W., Welch, M.J., *Rad. Res.* 82 467 (1980).
5. Charlton, D.E., *Rad. Res.* 107 163 (1986).
6. Hunter, W.M. and Greenwood, F.C., *Nature* 194 495 (1962).

IODINE-125 DECAY CHART HALF LIFE=60 days

Radiations: Gamma 35.5 keV (7%) , X-ray K alpha 27 KeV (112%), K beta 31 keV (24%)

DAYS	0	2	4	6	8	10	12	14	16	18
0	1.000	.977	.955	.933	.912	.891	.871	.851	.831	.812
20	.794	.776	.758	.741	.724	.707	.691	.675	.660	.645
40	.630	.616	.602	.588	.574	.561	.548	.536	.524	.512
60	.500	.489	.477	.467	.456	.445	.435	.425	.416	.406
80	.397	.388	.379	.370	.362	.354	.345	.338	.330	.322
100	.315	.308	.301	.294	.287	.281	.274	.268	.262	.256
120	.250	.244	.239	.233	.228	.223	.218	.213	.208	.203

To obtain the correct radioactive concentration or amount for a date before the calibration date: divide by the decay factor corresponding to the number of days before the calibration date. To obtain the correct radioactive concentration or amount for a date after the calibration date: multiply by the decay factor corresponding to the number of days after the calibration date.

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