

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

[¹²⁵I]-r Protein A

Low Specific Activity

Product Number: NEX146L

LOT SPECIFIC INFORMATION:

CALCULATED AS OF: 6-Jun-2011

LOT NUMBER: BS70810

SPECIFIC ACTIVITY: 14.6 TBq/mmol
393.7 Ci/mmol
0.3 MBq/μg
9.4 μCi/μg

CONCENTRATION: 4.7 MBq/ml
127.9 μCi/ml

UNBOUND IODIDE: <5% unbound iodine

Package Size Information

Package Size as of 8-Jul-2011	Volume
3.7 MBq 100 μCi	1.25 ml
9.25 MBq 250 μCi	3.125 ml

MOLECULAR WEIGHT: ~ 42,000

PACKAGING: [¹²⁵I]-rProtein A is in 0.05M sodium phosphate buffer, pH 4.0, containing 35% ethanol. It is shipped ambient.

STABILITY AND STORAGE: [¹²⁵I]-rProtein A should be stored at 4°C. Under these conditions, the product has been shown to be useful in Western blots for at least three weeks. Specific binding to solid phase IgG is >80% after three weeks.

SPECIFIC ACTIVITY: 2-10 μCi/μg (0.07-0.37 MBq/μg) on fresh lot date as determined from ¹²⁵I incorporation into rProtein A. Specific activity decays with time.

RADIOCHEMICAL PURITY: Initially less than 5% unbound iodide as determined by thin layer chromatography.

PREPARATIVE PROCEDURE: Ultrapure rProtein A™ (Repligen) is radioiodinated with no carrier added ¹²⁵I using a modification of the Hunter and Greenwood method¹ and is purified by ion-exchange chromatography. This method predominantly labels tyrosine residues.

AVAILABILITY: [¹²⁵I]-rProtein A 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.

APPLICATIONS: [¹²⁵I]-rProtein A is used to detect proteins in Western blots² with GeneScreen™ and GeneScreen™Plus membranes. In this rapid method, NEX-146 exhibits almost no non-specific binding^{3,4}. Quantitation of antigen-antibody complexes⁵ and use as a general second antibody in radioimmunoassay⁶ are among the numerous applications of [¹²⁵I]-rProtein A. It provides an ideal tool for rapid evaluation of clones generated using hybridoma techniques. High-specific-activity [¹²⁵I]-rProtein A may aid detection sensitivity. For reviews and general Protein A references, see 5-8.

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 slightly toxic and flammable. Target organ is the central nervous system.

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

REFERENCES:

1. Kohart, J., Kiesel, J. and Stark, G.R., *Proc. Natl. Acad. Sci. USA* **10** 5110-5120 (1977).
8. Wang, H.P. and Mayer, P.C., *J. Immunological Methods* **72** 61-70 (1984).

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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