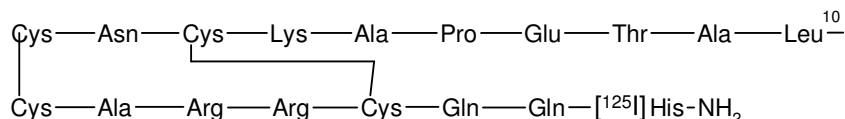


NEX242

[¹²⁵I]-Apamin



LOT SPECIFIC INFORMATION:

CALCULATED AS OF: 25-Sep-2006
LOT NUMBER: EEB0160
SPECIFIC ACTIVITY: 81.4 TBq/mmol
2200 Ci/mmol[†]
37.8 MBq/μg
1023 μCi/μg
RADIOCHEMICAL PURITY: >95%

Package Size Information

Package Size as of 01-Dec-2006	Total Activity on 25-Sep-2006
925 kBq 25 μCi	2.11 MBq 57.1 μCi
1.85 MBq 50 μCi	4.23 MBq 114 μCi
3.70 MBq 100 μCi	8.46 MBq 229 μCi

MOLECULAR WEIGHT: 2151

PACKAGING: [¹²⁵I]-Apamin is lyophilized from a solution containing 0.05M sodium phosphate, 0.15M NaCl, 1M glycine, and 0.1% BSA at pH 5.2. It is shipped ambient.

STABILITY AND STORAGE: The lyophilized [¹²⁵I]-Apamin should be stored at 4 °C or lower. Following reconstitution with distilled water to a concentration of approximately 50 μCi/ml on calibration date, aliquot and store at -20 °C or lower. 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 [¹²⁵I]-Apamin is 2200 Ci/mmol (81 TBq/mmol), 1023 μCi/μg (36 MBq/μg). Preparative HPLC is used to separate apamin from [¹²⁵I]-Apamin. Upon decay, [¹²⁵I]-Apamin undergoes decay catastrophe and the specific activity remains constant with time. However, it is not known what molecular or peptide fragments are generated from the decay event or what functional activity these fragments may have in different assays. References on ¹²⁵I decay and decay catastrophe of ¹²⁵I labeled compounds are available.¹⁻⁵

99179A-0401

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

PREPARATIVE PROCEDURE: Apamin is radioiodinated with no carrier added ^{125}I using a modification of the Hunter and Greenwood method⁶ and purified by reversed phase HPLC.

AVAILABILITY: [^{125}I]-Apamin is routinely available from stock and is prepared fresh and packaged for shipment on the fourth Monday of January, March, May, July, September, and November. Please inquire for larger package sizes

APPLICATIONS: [^{125}I]-Apamin is a K^+ channel antagonist and can be used in the detection and quantification of K^+ channel receptors. [^{125}I]-Apamin has been used in receptor binding assays and in autoradiography.

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 or inhalation. It is irritating to the eyes, skin and respiratory tract. It is toxic.

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 Schimdt, J., *J. Biol. Chem.* 259 1660 (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., *Radiation Research* 82 467 (1980).
- 5 Charlton, D.E., *Radiation Research*, 107 163 (1986).
- 6 Hunter, W.M. and Greenwood, F.C., *Nature* 194 495 (1962).
- 7 Wagner, J., and Snyder, S., John Hopkins Univ. personal communication.

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.