N-α-NICOTINOYL-[^{125}I]Tyr-(N-α-CBZ-Arg)-Lys-His-Pro-Ile-OH

Product Number: NEX324

[^{125}I]-CGP 42112A

LOT SPECIFIC INFORMATION

CALCULATED AS OF: 19-Aug-2024

LOT NUMBER: HG02540

SPECIFIC ACTIVITY:
81.4 TBq/mmol
2200 Ci/mmol
69.2 MBq/µg
1871 µCi/µg

RADIOCHEMICAL PURITY: >95%

MOLECULAR WEIGHT: 1176

Package Size Information

Package Size as of 25-Oct-2024
185 kBq 5 µCi
925 kBq 25 µCi

PACKAGING: [^{125}I]-CGP 42112A is lyophilized from a solution containing 0.05M sodium phosphate, 0.18M sodium chloride, 1M glycine, 0.25% BSA, at pH 5.2. It is shipped ambient.

STABILITY AND STORAGE: The lyophilized [^{125}I]-CGP 42112A should be stored at 4˚C or lower. Following reconstitution with distilled water to a concentration of approximately 25 µCi/ml on calibration date, aliquot and store at -20˚C. Under these conditions the product is stable and usable for nine to ten weeks after fresh lot date.

SPECIFIC ACTIVITY: The initial specific activity of [^{125}I]-CGP 42112A is 2200 Ci/mmol (81 TBq/mmol), 1871 µCi/µg (69 MBq/µg). Preparative HPLC is used to separate CGP 42112A from [^{125}I]-CGP 42112A. Upon decay, [^{125}I]-CGP 42112A 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 ^{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: CGP 42112A 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]-CGP 42112A is routinely available from stock and is prepared fresh and packaged for shipment on the third Monday of February, April, June, August, October and December. Please inquire for larger package sizes.

APPLICATIONS: Extremely high selectivity makes ^{125}I-CGP 42112A very useful for competitive binding assays, isolation of receptors, and autoradiography.[7-11] Binding studies succeed even with difficult tissues, tissues with low AT$_2$

isolation of receptors, and autoradiography. Binding studies succeed even with difficult tissues, tissues with low AT_2 densities or mixtures of angiotensin receptor subtypes.[10] ^{125}I-CGP 42112A helps in purifying and characterizing AT_2 receptors from immature rat kidney.[11] ^{125}I-CGP 42112A is the best choice for autoradiographic studies of AT_2 receptors.[8] The properties of high selectivity, affinity, stability, and specific activity make NEX324 an attractive tool for studies of the angiotensin AT_2 receptor.

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. 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).
7. Balla, T. Baukal, A.J., Eng, S., Catt, K.J. *Mol. Pharmacology* 40 401-6 (1991).
8. Heemskerk, F.M.J., Zorad, S., Seltzer, A., Saavedra, J.M., *NeuroReport* 4(1) 103-5 (1993).
9. Sumners, C., Tang, W., Zelezna, B., Raizada, M.K., *Proc. Natl Acad. Sci.* USA 88 7567-71 (1991).
10. Whitebread, S.E., Taylor, V., Bottari, S.P., Kamber, B., de Gasparo, M., *Biochem. Biophys. Res. Comm.* 181(3)
11. Ciuffo, G.M., Heemskerk, F.M.J., Saavedra, J.M., *Proc. Natl Acad. Sci.* USA 90 11009-13 (1993).

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	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	0.66	0.645
40	0.63	0.616	0.602	0.588	0.574	0.561	0.548	0.536	0.524	0.512
60	0.5	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	0.37	0.362	0.354	0.345	0.338	0.33	0.322
100	0.315	0.308	0.301	0.294	0.287	0.281	0.274	0.268	0.262	0.256
120	0.25	0.244	0.239	0.233	0.228	0.223	0.218	0.213	0.208	0.203

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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