[^{125}I]-[D-Trp^{6}]-LUTEINIZING HORMONE-RELEASING HORMONE

Product Number: NEX365

[^{125}I]-[D-Trp^{6}]-LH-RH

pGlu-His-Trp-Ser-[^{125}I]Tyr-D-Trp-Leu-Arg-Pro-Gly-NH_2

LOT SPECIFIC INFORMATION

CALCULATED AS OF: **8-Jul-2024**

LOT NUMBER: **IZ81640**

SPECIFIC ACTIVITY:

81.4	**TBq/mmol**
2200	**Ci/mmol**
56.7	**MBq/µg**
1532	**µCi/µg**

Package Size Information

Package Size as of 16-Aug-2024
370 kBq 10 µCi
1.85 MBq 50 µCi

RADIOCHEMICAL PURITY **≥ 95%**

MOLECULAR WEIGHT: **~1436.5**

PACKAGING: [^{125}I]-[D-Trp^{6}]-LH-RH is lyophilized from a solution containing 0.04M sodium phosphate, 1M glycine, 0.2M NaCl, 0.25% BSA, 500 KIU/ml Trasylol® at pH 7.2. It is shipped ambient.

STABILITY AND STORAGE: The lyophilized [^{125}I]-[D-Trp^{6}]-LH-RH 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 six weeks after fresh lot date.

SPECIFIC ACTIVITY: The initial specific activity of [^{125}I]-[D-Trp^{6}]-LH-RH is 2200 Ci/mmol (81.4 TBq/mmol), 1532 µCi/µg (56.7 MBq/µg). Preparative HPLC is used to separate unlabeled luteinizing hormone-releasing hormone from [^{125}I]-[D-Trp^{6}]-LH-RH. Upon decay, [^{125}I]-[D-Trp^{6}]-LH-RH 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: [D-Trp^{6}]-LH-RH 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]-[D-Trp^{6}]-LH-RH is routinely available from stock and is prepared fresh and packaged for shipment on the second Monday of each month. Please inquire for larger package sizes.

APPLICATIONS: [^{125}I]-[D-Trp^{6}]-LH-RH will be useful for receptor binding studies in cell lines and tissue cultures.[7-9]

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, the skin and the respiratory tract.

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

REFERENCES:

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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
0	1	0.977	0.955	0.933	0.912	0.891	0.871	0.851	0.831
20	0.794	0.776	0.758	0.741	0.724	0.707	0.691	0.675	0.66
40	0.63	0.616	0.602	0.588	0.574	0.561	0.548	0.536	0.524
60	0.5	0.489	0.477	0.467	0.456	0.445	0.435	0.425	0.416
80	0.397	0.388	0.379	0.37	0.362	0.354	0.345	0.338	0.33
100	0.315	0.308	0.301	0.294	0.287	0.281	0.274	0.268	0.262
120	0.25	0.244	0.239	0.233	0.228	0.223	0.218	0.213	0.208

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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