[125I]-Human Growth Hormone
[125I]-HGH

Product Number: NEX100

LOT SPECIFIC INFORMATION:

CALCULATED AS OF: 23-Dec-2024

LOT NUMBER: AH13150

SPECIFIC ACTIVITY:
102.1 TBq/mmol
2758.8 Ci/mmol
4.7 MBq/µg
128 µCi/µg

CONCENTRATION:
3.4 MBq/ml
92.6 µCi/ml

RADIOCHEMICAL PURITY: >95%

MOLECULAR WEIGHT: ~21,500

Package Size Information

Package Size as of 31-Jan-2025	Volume
370 kBq 10 µCi	0.20 ml
1.85 MBq 50 µCi	1.00 ml

PACKAGING: [^{125}I]-HGH is in 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 on dry ice.

STABILITY AND STORAGE: [^{125}I]-HGH should be stored at -20°C or lower. It should be aliquoted in appropriate volumes to avoid repeated freeze-thaw cycles. Under these conditions, the product is stable and usable in radioimmunoassays for at least four weeks after fresh lot date.

SPECIFIC ACTIVITY: 85-130 µCi/µg (3.1-4.8 MBq/µg) on fresh lot date as determined from ^{125}I incorporation into human growth hormone. Specific activity decays with time.

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

PREPARATIVE PROCEDURE: Human growth hormone is radioiodinated with no carrier added ^{125}I using a modification of the Hunter and Greenwood method[1] and purified by gel filtration chromatography. This method predominantly labels tyrosine residues.

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

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

REFERENCE:

1. Hunter, W.M. and Greenwood, F.C., *Nature* 194, 495 (1962).

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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	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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