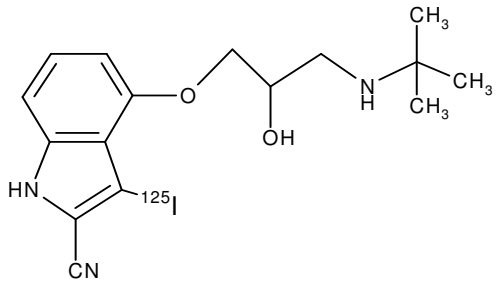
TECHNICAL DATA SHEET

^{125}I

Research Use Only. Not for use in diagnostic procedures.

[^{125}I]-(±)Iodocyanopindolol

Product Number: NEX174



LOT SPECIFIC INFORMATION:

CALCULATED AS OF: 1-Mar-2021

LOT NUMBER: CO40910

SPECIFIC ACTIVITY:

81.4	TBq/mmol
2200	Ci/mmol
200	MBq/µg
5400	µCi/µg

CONCENTRATION:

6.67	MBq/ml
180.1	µCi/ml

Package Size Information

Package Size as of 9-Apr-2021	Volume
3.70 MBq 100 µCi	1.00 ml
18.6 MBq 500 µCi	5.00 ml

RADIOCHEMICAL PURITY: ≥ 95%

MOLECULAR WEIGHT: 411

PACKAGING: [^{125}I]-(±)Iodocyanopindolol is in a solution containing 1-propanol:water:phenol (approximately 50:50:1.2). It is shipped on dry ice.

SPECIAL INFORMATION: This compound is light sensitive. Exposure to light may hasten decomposition. [^{125}I]-(±)Iodocyanopindolol is supplied in a red NENSURE™ vial which contains a U.V. inhibitor.

STABILITY AND STORAGE: [^{125}I]-(±)Iodocyanopindolol should be stored at -20°C or lower in the dark. Under these conditions the product is stable and usable for use in receptor binding studies for at least six weeks after fresh lot date.

SPECIFIC ACTIVITY: The initial specific activity of [^{125}I]-(±)Iodocyanopindolol is 2200 Ci/mmol, (81 TBq/mmol), 5400 µCi/µg (200 MBq/µg). Preparative HPLC is used to separate unlabeled cyanopindolol from [^{125}I]-(±)Iodocyanopindolol. Upon decay, [^{125}I]-(±)Iodocyanopindolol undergoes decay catastrophe and the specific activity remains constant with time. However, it is not known what molecular 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: Cyanopindolol is radioiodinated with no carrier added ^{125}I using a modification of the Hunter and Greenwood method[6] and is purified by reversed phase HPLC.

INSTRUCTIONS FOR USE: If necessary, remove the 1-propanol and water by evaporation. Small aliquots may be evaporated under a gentle stream of dry nitrogen or dry air. (A volatile radioiodine trap is supplied for use during evaporation of the solvent). Rotary evaporation at ambient temperature is recommended for larger volumes. Since [^{125}I]-(±)Iodocyanopindolol degrades more rapidly on evaporation to dryness, phenol is added to prevent complete evaporation.

AVAILABILITY: [^{125}I]-(±)Iodocyanopindolol 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.

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 corrosive and irritating to the eyes, skin and respiratory tract, is highly toxic and flammable. Target organs are the eyes, central nervous system, kidneys, liver and heart.

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 1660 (1984).
3. Loring, R.H., Jor (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 and Greenwood, F.C., Nature 194 495 (1962).
7. Gouarderes, C., Roumy, M., Advokat, C., Jhamandas, K., Zajac, J.M., *Synapase* 35(1) 45-52 (2000).
8. Gouarderes, C., Tafani, J.A., Mazarguil, H. and Zajac, J.M., *Brain Res Bul. l* 42(3) 231-8 (1997).
9. Dupouy, V. and Zajac, J.M., *Synapse* 24(3) 282-96(1996).

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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