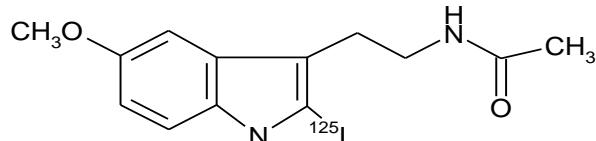


# 2-[<sup>125</sup>I]-IODOMELATONIN

## N-ACETYL-2-[<sup>125</sup>I]IDO-5-METHOXYTRYPTAMINE

Product Number: NEX236



### LOT SPECIFIC INFORMATION

CALCULATED AS OF: 12-May-2025

LOT NUMBER: EG71850

SPECIFIC ACTIVITY: 81.4 TBq/mmol  
2200 Ci/mmol  
228 MBq/µg  
6175 µCi/µgCONCENTRATION: 8.82 MBq/ml  
238.4 µCi/mlRADIOCHEMICAL PURITY:  $\geq 95\%$ 

MOLECULAR WEIGHT: 356.3

PACKAGING: 2-[<sup>125</sup>I]-iodomelatonin is shipped in ethanol on dry ice.**SPECIAL INFORMATION:** This compound is light sensitive. Exposure to light may hasten decomposition. 2-[<sup>125</sup>I]-iodomelatonin is supplied in a red NENSURE™ vial which contains a U.V. inhibitor.**STABILITY AND STORAGE:** 2-[<sup>125</sup>I]-iodomelatonin should be stored at 4°C or lower. Under these conditions the product has been shown to be useful in a receptor assay for at least 12 weeks after fresh lot date.**SPECIFIC ACTIVITY:** The initial specific activity of 2-[<sup>125</sup>I]-iodomelatonin is 2200 Ci/mmol (81 TBq/mmol), 6175 µCi/µg (228 MBq/µg). Preparative HPLC is used to separate the unlabeled melatonin from [<sup>125</sup>I]-iodomelatonin. Upon decay, 2-[<sup>125</sup>I]-iodomelatonin 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 <sup>125</sup>I decay and decay catastrophe of <sup>125</sup>I labeled compounds are available.<sup>1-5</sup>**RADIOCHEMICAL PURITY:** Initially greater than 95% radiochemically pure as determined by HPLC.

Package Size Information	
Package Size as of 18-Jul-2025	Volume
1.85 MBq 50 µCi	0.50 ml
3.70 MBq 100 µCi	1.00 ml
925 MBq 250 µCi	2.50 ml

**PREPARATIVE PROCEDURE:** Melatonin is radioiodinated with no carrier added <sup>125</sup>I using a proprietary method designed to prevent its oxidation. 2-[<sup>125</sup>I]-iodomelatonin is purified by reversed phase HPLC.  
NEX236-R-REV01

**AVAILABILITY:** 2-[<sup>125</sup>I]Iodomelatonin is routinely available from stock and is prepared fresh and packaged for shipment on the second Mondays of January, March, May, July, September, and November. 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 irritating to the eyes, skin and respiratory tract, is toxic and flammable. Target organs are the eyes, central nervous system, kidneys and liver.

**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	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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