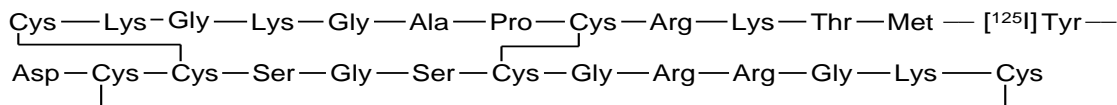


**[<sup>125</sup>I]-ω-CONOTOXIN MVIIC**

Product Number: NEX323

**LOT SPECIFIC INFORMATION**

CALCULATED AS OF: 27-Jan-2025

LOT NUMBER: HF22850

SPECIFIC ACTIVITY: 81.4 TBq/mmol  
 2200 Ci/mmol  
 28.3 MBq/μg  
 764 μCi/μg

**Package Size Information**

Package Size as of 28-Feb-2025
370 kBq 10 μCi
1.85 MBq 50 μCi

RADIOCHEMICAL PURITY: ≥ 95%

MOLECULAR WEIGHT: 2880

**PACKAGING:** [<sup>125</sup>I]-ω-Conotoxin MVIIC is lyophilized from a solution containing 0.05M sodium phosphate, 0.18M NaCl, 1M glycine, 0.1% BSA, and a stabilizer, at pH 5.2.

**STABILITY AND STORAGE:** The lyophilized [<sup>125</sup>I]-ω-Conotoxin MVIIC 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 4°C or lower. Under these conditions the product is stable and usable in receptor binding assays for at least six weeks after fresh lot date.

**SPECIFIC ACTIVITY:** The initial specific activity of [<sup>125</sup>I]-ω-Conotoxin MVIIC is 2200 Ci/mmol (81 TBq/mmol), 764 μCi/μg (28 MBq/μg). Preparative HPLC is used to separate unlabeled ω-Conotoxin MVIIC from [<sup>125</sup>I]-ω-Conotoxin MVIIC. Upon decay, [<sup>125</sup>I]-ω-Conotoxin MVIIC 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.

**PREPARATIVE PROCEDURE:** ω-Conotoxin MVIIC (*Conus magus*) is radioiodinated with no carrier added <sup>125</sup>I using a lactoperoxidase procedure and is purified by reversed phase HPLC.

**AVAILABILITY:** [<sup>125</sup>I]-ω-Conotoxin MVIIC 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.

**APPLICATIONS:** The properties of novel selectivity, high affinity, high specific activity, and high stability make NEX-323 an excellent ligand for the study of calcium channels.<sup>6,7</sup> Applications include autoradiography<sup>8</sup> and competitive binding studies.<sup>6,8,9,10</sup>

**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 system. It is toxic and flammable. Target organs are the respiratory system, central nervous system, and skin.

eyes, skin and respiratory system. It is toxic and flammable. Target organs are the respiratory system, 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
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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0.812
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