

**[<sup>125</sup>I]-TYR<sup>0</sup>-SAUVAGINE**

Product Number: NEX306

[<sup>125</sup>I]-Tyr-Gln-Gly-Pro-Pro-Ile-Ser-Ile-Asp-Leu-Ser-Leu-Glu-Leu-Leu-Arg-  
Lys-Met-Ile-Glu-Ile-Glu-Lys-Gln-Glu-Lys-Glu-Lys-Gln-Gln-Ala-Ala-Asn-Asn-  
Arg-Leu-Leu-Leu-Asp-Thr-Ile-NH<sub>2</sub>

**LOT SPECIFIC INFORMATION**

**CALCULATED AS OF:** 22-Jul-2024

**LOT NUMBER:** GO83040

**SPECIFIC ACTIVITY:** 81.4 TBq/mmol  
2200 Ci/mmol  
17.0 MBq/μg  
460 μCi/μg

**Package Size Information**

Package Size as of	Volume
30-Aug-2024	
370 kBq 10 μCi	0.20 ml
1.85 MBq 50 μCi	1.00 mL

**CONCENTRATION:** 3.20 MBq/ml  
86.4 μCi/ml

**MOLECULAR WEIGHT:** 4778.0

**RADIOCHEMICAL PURITY:** ≥ 95%

**PACKAGING:** [<sup>125</sup>I]Tyr<sup>0</sup>-Sauvagine is in a solution containing acetonitrile:water (35:65), 0.05M β-mercaptoethanol, 0.2% TFA, and 0.2% BSA. It is shipped ambient.

**STABILITY AND STORAGE:** [<sup>125</sup>I]Tyr<sup>0</sup>-Sauvagine should be stored at 4°C. Under these conditions the product is stable and usable for at least six weeks after fresh lot date.

**SPECIAL INFORMATION:** [<sup>125</sup>I]Tyr<sup>0</sup>-Sauvagine sticks to glass. We recommend using silanized glass or plastics to minimize this problem.

**SPECIFIC ACTIVITY:** The initial specific activity of [<sup>125</sup>I]Tyr<sup>0</sup>-Sauvagine is 2200 Ci/mmol (81 TBq/mmol), 460 μCi/ug (17 MBq/ug). Preparative HPLC is used to separate unlabeled Tyr<sup>0</sup>-Sauvagine from [<sup>125</sup>I-Tyr<sup>0</sup>]-Sauvagine. Upon decay, [<sup>125</sup>I-Tyr<sup>0</sup>]-Sauvagine 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 <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:** Tyr<sup>0</sup>-Sauvagine is radioiodinated with no carrier added <sup>125</sup>I using a lactoperoxidase method and is purified by reversed phase HPLC. This procedure ensures that all methionine residues are in the native, bioactive thioether form and are not oxidized.

**APPLICATIONS:** [<sup>125</sup>I]Tyr<sup>0</sup>-Sauvagine has been shown to be active in receptor binding assays and has been used for receptor autoradiography.<sup>6</sup>

**AVAILABILITY:** [<sup>125</sup>I]Tyr<sup>0</sup>-Sauvagine 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.

**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. 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:**

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., Jones, S.W., Matthews-Bellinger, J., Salpeter, M.M., *J. Biol. Chem.* 257 1418 (1982).
4. Berridge, M.S., Jiang, V.W., Welch, M.J., *Radiation Research* 82 467 (1980).
5. Charlton, D.E., *Radiation Research* 107 163 (1986).
6. Grigoriadis, D., Personal Communication (1995).

**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	0.977	0.955	0.933	0.912	0.891	0.871	0.851	0.831	0.812
20	0.794	0.776	0.758	0.741	0.724	0.707	0.691	0.675	0.66	0.645
40	0.63	0.616	0.602	0.588	0.574	0.561	0.548	0.536	0.524	0.512
60	0.5	0.489	0.477	0.467	0.456	0.445	0.435	0.425	0.416	0.406
80	0.397	0.388	0.379	0.37	0.362	0.354	0.345	0.338	0.33	0.322
100	0.315	0.308	0.301	0.294	0.287	0.281	0.274	0.268	0.262	0.256
120	0.25	0.244	0.239	0.233	0.228	0.223	0.218	0.213	0.208	0.203

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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