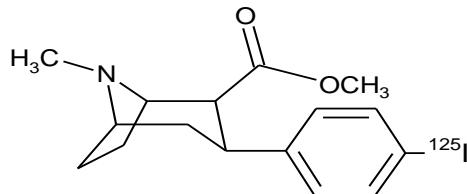


[¹²⁵I]-RTI-55

Product Number: NEX272

**LOT SPECIFIC INFORMATION****CALCULATED AS OF:** 24-Feb-2025**LOT NUMBER:** FH50250**SPECIFIC ACTIVITY:**
81.4 TBq/mmol
2200 Ci/mmol
211 MBq/µg
5711 µCi/µg**CONCENTRATION:** 44.1 MBq/ml
1190.9 µCi/ml**RADIOCHEMICAL PURITY:** ≥ 95%**MOLECULAR WEIGHT:** 385.2**Package Size Information**

Package Size as of 2-May-2025	Volume
925 kBq	
25 µCi	0.05 mL
9.25 MBq	
250 µCi	0.50 mL

PACKAGING: [¹²⁵I]-RTI-55 is in a solution containing ethanol:water:acetonitrile (1:1:0.1). It is shipped ambient.**STABILITY AND STORAGE:** [¹²⁵I]-RTI-55 should be stored at 4°C or lower. Under these conditions the product is stable and usable for at least sixteen weeks after fresh lot date.**SPECIFIC ACTIVITY:** The initial specific activity of [¹²⁵I]-RTI-55 is 2200 Ci/mmol, (81 TBq/mmol), 5711 µCi/µg (211 MBq/µg). Preparative HPLC separates unlabeled precursor from [¹²⁵I]-RTI-55. Upon decay, [¹²⁵I]-RTI-55 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 ¹²⁵I decay and decay catastrophe of ¹²⁵I labeled compounds are available.¹⁻⁵**RADIOCHEMICAL PURITY:** Initially greater than 95% radiochemically pure as determined by HPLC.**PREPARATIVE PROCEDURE:** β-(4-trimethylstannylphenyl)-tropone-2β -carboxylic acid methyl ester is radioiodinated with no carrier added ¹²⁵I using a modification of the Moerlein and Coenen method^{6,7} and purified by reversed phase HPLC.**AVAILABILITY:** [¹²⁵I]-RTI-55 is routinely available from stock and is prepared fresh and packaged for shipment on the fourth Monday of February, April, June, August, October, and December. Please inquire for larger package sizes.**APPLICATIONS:** [¹²⁵I]-RTI-55 serves in receptor binding assays; binds with high affinity at the dopamine transporter sites: $K_d = 0.11 \text{ nM}$ for high affinity sites and 2.57 nM for low affinity sites.⁸ Several properties--high specific activity

SITES. $K_d = 0.11$ nM for high affinity site and 2.07 nM for low affinity site. Several properties--high specific activity, superior affinity, and strong selectivity--make [^{125}I]-RTI-55 an excellent radioligand for the study of the dopamine transporter sites using either tissue homogenates or autoradiographic methods--especially in regions of low receptor density. In addition, [^{125}I]-RTI-55 readily crosses the blood-brain barrier.⁹

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 flammable and explosive may be fatal if swallowed or inhaled (4000 ppm dangerous to life or health). This component causes central nervous depression and may be poisonous upon decomposition.

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** 1160 (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., *Rad. Res.* **82** 467 (1980).
5. Charlton, D.E., *Rad. Res.* **107** 163 (1986).
6. Moerlein, S. M. Coenen, H. H., *J. Chem. Soc. Perkin Trans. 1* 1941 (1985).
7. Seitz, D. E., Tonnesen, G. L., Hellman, S., Hanson, R. N., Abelstein, S. J. *J. Organometallic Chem.* **186** C33
8. Boja, J. W., Patel, A., Carroll, F. I., Rahman, M. A., Phillip, A., Lewin, A. H., Kopajtic, T. A., Kuhar, M. J., *Eur. Jour. Pharm* **194** 133 (1991).
9. Michael J. Kuhar, personal communication.

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.

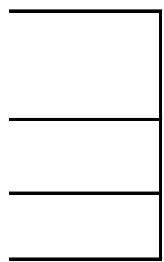
The information provided in this document is valid for the specified lot number and date of analysis. This information is for reference purposes only and does not constitute a warranty or guarantee of the product's suitability for any specific use. Revvity, Inc., its subsidiaries, and/or affiliates (collectively, "Revvity") disclaims all liability for any errors or damages arising from the use of this document or the product described herein. REVVTY EXPRESSLY DISCLAIMS ALL WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDLESS OF WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED, ALLEGEDLY ARISING FROM ANY USAGE OF ANY TRADE OR ANY COURSE OF DEALING, IN CONNECTION WITH THE INFORMATION CONTAINED HEREIN OR THE PRODUCT ITSELF.

revvity

Revvity, Inc.
940 Winter Street
Waltham, MA 02451 USA

(800) 762-4000
www.revvity.com

For a complete listing of our global offices, visit www.revvity.com
Copyright ©2023, Revvity, Inc. All rights reserved.



18
0.812
0.645
0.512
0.406
0.322
0.256
0.203

id does not
o not assume
/ARRANTIES,
WRITTEN,
-E USE OF

y

