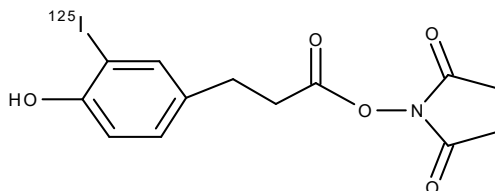


N-succinimidyl-3-(4-hydroxy-3-[¹²⁵I]iodophenyl)propionate

[¹²⁵I]-Bolton-Hunter Reagent (monoiodinated)

[¹²⁵I]-BHR

Product Number: NEX120



LOT SPECIFIC INFORMATION CALCULATED AS OF: 25-Mar-2024

LOT NUMBER:	BA41940		
SPECIFIC ACTIVITY:	81.4 TBq/mmol	210 MBq/μg	
	2200 Ci/mmol	5682 μCi/μg	
RADIOCHEMICAL PURITY:	≥ 95%	MOLECULAR WEIGHT:	387.2

Package Size as of 19-Apr-2024	Concentration on 25-Mar-2024	Volume
9.25 MBq 250 μCi	144 MBq/ml 3.89 mCi/ml	0.100ml
37.0 MBq 1 mCi	57.6 MBq/ml 15.6 mCi/ml	0.100ml
74.0 MBq 2 mCi	1.05 GBq/ml 28.3 mCi/ml	0.100ml

PACKAGING: [¹²⁵I]-BHR is supplied in anhydrous 2-methyltetrahydrofuran with 250 ppm BHT (butylated hydroxytoluene) stabilizer in a NENSURE™ vial. A charcoal trap is provided with each vial.

STABILITY AND STORAGE: [¹²⁵I]-BHR should be stored in the shipping vial at ambient or lower temperature. Under these conditions, radiochemical impurities increase at a rate of approximately 5% per week. The reagent may be used for protein labeling for at least three weeks after fresh lot date.

SPECIFIC ACTIVITY: The initial specific activity of [¹²⁵I]-BHR is 2200 Ci/mmol, (81 TBq/mmol), 5700 μCi/μg (210 MBq/μg). Preparative HPLC is used to separate unlabeled succinimidyl-3-(p-hydroxyphenyl)propionate and di[¹²⁵I]-BHR from [¹²⁵I]-BHR. Upon decay, [¹²⁵I]-BHR 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. References on ¹²⁵I decay and decay catastrophe of ¹²⁵I labeled compounds are available.¹⁻⁶

RADIOCHEMICAL PURITY: Initially greater than 95% radiochemically pure as determined by reversed-phase HPLC.

PREPARATIVE PROCEDURE: Quantitative synthesis of [¹²⁵I]-BHR is achieved by the reaction of [¹²⁵I]-N-succinimidyl-3-(4-hydroxyphenyl)propionate with 2-mercaptoethanol in the presence of a base.

PREPARATIVE PROCEDURE: Succinimidyl-3-(p-hydroxyphenyl) propionate is radioiodinated with no carrier added ¹²⁵I using a modification of the chloramine T method,⁷⁻¹⁰ and is purified by reversed-phase HPLC.

AVAILABILITY: [¹²⁵I]-BHR is prepared fresh each week and is routinely available from stock. Please inquire for larger package sizes.

HAZARD WARNING: This product contains a chemical (s) known to the state of California to cause cancer.

RADIATION UNSHIELDED: 280mR/hr/mCi at vial surface.

I

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., *Rad. Res.* 82 467 (1980).
5. Charlton, D.E., *Rad. Res.* 107 163 (1986).
6. Doran, A.C., Wan, Y-P, Kopin, A.S., Beinborn, M., *Biochem. Pharm.* 65 1515-20 (2003).
7. Rudinger, J. and Ruegg, U., *Biochem. J.* 133 538-539 (1973).
8. Bolton, A.E. and Hunter, W.M., *Biochem. J.* 133 529-539 (1973).
9. Bolton, A.E., Bennie, J.G., Hunter, W.M., "Innovations in Labelling Techniques for Radioimmunoassays", Proceedings of the 24th Colloquium Brugge, 687-693 (1976).
10. Hunter, W.M. and Greenwood, F.C., *Nature* 194 495 (1962).

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.

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") do not assume any liability for any errors or damages arising from the use of this document or the product described herein. REVVITY EXPRESSLY DISCLAIMS ALL WARRANTIES, 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 USE OF INFORMATION CONTAINED HEREIN OR THE PRODUCT ITSELF.

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.