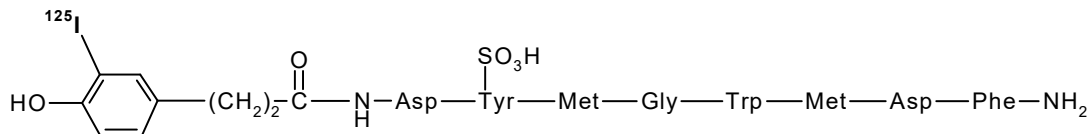


# [<sup>125</sup>I]-Bolton Hunter labeled Cholecystokinin Octapeptide

## [<sup>125</sup>I]- CCK-8

**Product Number:** NEX203



### LOT SPECIFIC INFORMATION:

**CALCULATED AS OF:** 4-Dec-2023

**LOT NUMBER:** DD10540

**SPECIFIC ACTIVITY:**  
 81.4 TBq/mmol  
 2200 Ci/mmol  
 57.5 MBq/μg  
 1555 μCi/μg

**CONCENTRATION:**  
 3.17 MBq/ml  
 85.7 μCi/ml

**RADIOCHEMICAL PURITY:** ≥ 95%

### Package Size Information

Package Size as of 5-Jan-2024	Volume
370 kBq 10 μCi	0.20 ml
1.85 MBq 50 μCi	1.00 ml

**MOLECULAR WEIGHT:** ~1,415

**PACKAGING:** [<sup>125</sup>I]-CCK-8 is in a solution containing 30% ethanol, 25% acetonitrile, 0.04% trifluoroacetic acid, and a stabilizer. It is shipped on dry ice in silanized glass vials.

**STABILITY AND STORAGE:** [<sup>125</sup>I]-CCK-8 should be stored at -20°C or lower. Under these conditions the product has been shown to be useful in receptor binding assays for at least four weeks after fresh lot date. If the product is to be used over longer periods of time, it is recommended that it be aliquotted into silanized vials and stored at -20°C or lower.

**SPECIAL INFORMATION:** [<sup>125</sup>I]-CCK-8 sticks to both glass and plastic. We recommend using silanized glass to minimize this problem.

**RADIOCHEMICAL PURITY:** Initially greater than 95% radiochemically pure as determined by HPLC.

**PREPARATIVE PROCEDURE:** Cholecystokinin octapeptide is radioiodinated with [<sup>125</sup>I]-Bolton Hunter reagent (monoiodinated)<sup>6</sup> and is purified by reversed phase HPLC.

**SPECIFIC ACTIVITY:** The initial specific activity of [<sup>125</sup>I]-CCK-8 is 2200 Ci/mmol (81 TBq/mmol), 1555 μCi/μg (60 MBq/μg). Preparative HPLC is used to separate the unlabeled cholecystokinin octapeptide from [<sup>125</sup>I]-CCK-8. Upon decay, [<sup>125</sup>I]-CCK-8 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>

**AVAILABILITY:** [<sup>125</sup>I]-CCK-8 is routinely available from stock and is prepared fresh and packaged for

shipment on the first 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 and inhalation. It is irritating to the eyes, is toxic and flammable. Target organs are the central nervous system, respiratory system, kidneys and liver.

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

**REFERENCES:**

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3. Loring (1982).
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5. Charlton, D.E., *Rad. Res.* 107 163 (1986).
6. Hunter and Greenwood, F.C., *Nature* 194 495 (1962).
7. Gouarderes, C., Roumy, M., Advokat, C., Jhamandas, K., Zajac, J.M., *Synapse* 35(1) 45-52 (2000).
8. Gouarderes, C., Tafani, J.A., Mazarguil, H. and Zajac, J.M., *Brain Res Bul. I* 42(3) 231-8 (1997).
9. Dupouy, V. and Zajac, J.M., *Synapse* 24(3) 282-96(1996).

**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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