TECHNICAL DATA SHEET

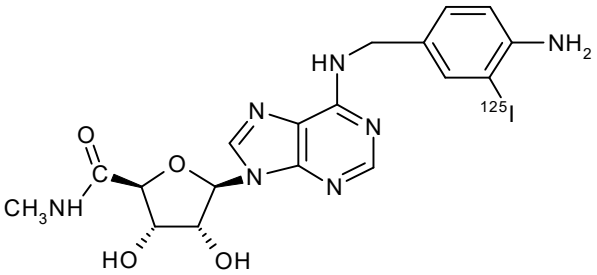
^{125}I

Caution: For Laboratory Use. A product for research purposes only.

[^{125}I]-4-AMINOBENZYL-5'-N-METHYLCARBOXAMIDEOADENOSINE

Product Number: NEX312

[^{125}I]-AB-MECA



LOT SPECIFIC INFORMATION

CALCULATED AS OF: 12-Dec-2022

LOT NUMBER: GU11330

SPECIFIC ACTIVITY:
81.4 TBq/mmol
2200 Ci/mmol
156 MBq/µg
4207 µCi/µg

CONCENTRATION:
6.31 MBq/ml
170.5 uCi/ml

RADIOCHEMICAL PURITY: ≥ 95%

MOLECULAR WEIGHT: 523

Package Size Information

Package Size as of 13-Jan-2023	Volume
370 kBq 10 uCi	0.100 mL
1.85 MBq 50 µCi	0.500 mL

PACKAGING: [^{125}I]-AB-MECA is in methanol (may contain up to 2% acetonitrile from the purification process). It is shipped ambient.

STABILITY AND STORAGE: [^{125}I]-AB-MECA should be stored at 4°C or lower. Under these conditions the product is stable and usable for at least six weeks after fresh lot date.

SPECIFIC ACTIVITY: The initial specific activity of [^{125}I]-AB-MECA is 2200 Ci/mmol, (81 TBq/mmol), 4207 µCi/µg (156 MBq/µg). Preparative HPLC separates unlabeled AB-MECA from [^{125}I]-AB-MECA. Upon decay, [^{125}I]-AB-MECA 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 ^{125}I decay and decay catastrophe of ^{125}I labeled compounds are available.[1-5]

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

PREPARATIVE PROCEDURE: AB-MECA is radioiodinated with no carrier added ^{125}I using a modification of the Hunter and Greenwood method[6] and is purified by reversed phase HPLC.

AVAILABILITY: [^{125}I]-AB-MECA is routinely available from stock and is prepared fresh and packaged for shipment on the second Monday of each month. Please inquire for larger package sizes.

APPLICATIONS: Agonist ^{125}I-AB-MECA binds strongly to cloned, human A_3AR (type 3 adenosine receptors): K_d=0.59.[7,8] However, ^{125}I-AB-MECA lacks high selectivity for A_3AR, so blocking agents for A_1AR (type 1 adenosine receptors) may greatly improve autoradiography results. A_3AR ligand

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 or ingestion. It is irritating to the eyes and skin. It is toxic and flammable. The target organs are the eyes, the central nervous system, the kidneys and the liver.

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

REFERENCES:

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7. Olah, M.E., Gallo-Rodriguez, C., Jacobson, K.A., Stiles, G.L., *Mol. Pharm.* 45 978-82 (1994).
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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	18
0	1.000	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	0.660	0.645
40	0.630	0.616	0.602	0.588	0.574	0.561	0.548	0.536	0.524	0.512
60	0.500	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	0.370	0.362	0.354	0.345	0.338	0.330	0.322
100	0.315	0.308	0.301	0.294	0.287	0.281	0.274	0.268	0.262	0.256
120	0.250	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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