

Product Name: 2-Cl-IB-MECA

Catalog No.: 1104

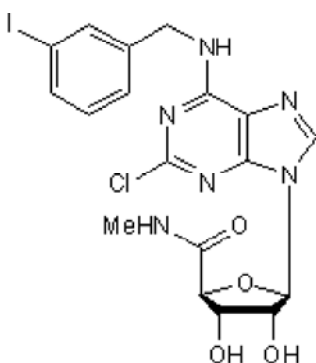
Batch No.: 9

CAS Number: 163042-96-4

IUPAC Name: 1-[2-Chloro-6-[[[(3-iodophenyl)methyl]amino]-9H-purin-9-yl]-1-deoxy-N-methyl-β-D-ribofuranuronamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₁₈ClIN₆O₄
Batch Molecular Weight: 544.74
Physical Appearance: White solid
Solubility: DMSO to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.35 (Chloroform:Methanol [9:1])
HPLC: Shows 98% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	39.69	3.33	15.43
Found	39.57	3.32	15.3

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

High affinity and extremely selective A₃ adenosine receptor agonist (K_i = 0.33 nM). Displays 2500- and 1400-fold selectivity over A₁ and A_{2A} receptors respectively. Exhibits high selectivity over the Na⁺-independent adenosine transporter.

Physical and Chemical Properties:

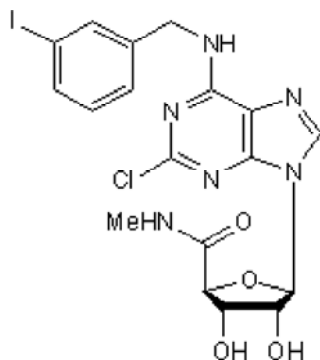
Batch Molecular Formula: C₁₈H₁₈ClIN₆O₄

Batch Molecular Weight: 544.74

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Desiccate at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Licensing Information:

Sold with the permission of the NIH, US Patent 08/091,109

References:

Jacobson (1998) Adenosine A₃ receptors: novel ligands and paradoxical effects. *TIPS* **19** 184. PMID: 9652191.

Schaick et al (1996) Hemodynamic effects of histamine release elicited by the selective adenosine A₃ receptor agonist 2-Cl-IB-MECA in conscious rats. *Eur.J.Pharmacol.* **308** 311. PMID: 8858305.

Kim et al (1994) 2-Substitution of N⁶-benzyladenosine-5'-uronamides enhances selectivity for A₃ adenosine receptors. *J.Med.Chem.* **37** 3614. PMID: 7932588.

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