

**Product Name:** 2-Cl-IB-MECA

**Catalog No.:** 1104

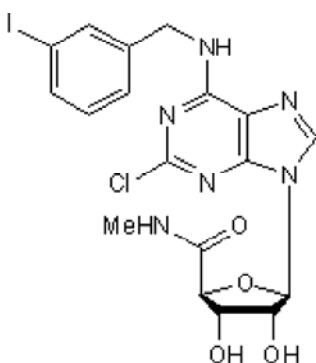
**Batch No.:** 9

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:** C<sub>18</sub>H<sub>18</sub>ClIN<sub>6</sub>O<sub>4</sub>  
**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<sub>f</sub> = 0.35 (Chloroform:Methanol [9:1])  
**HPLC:** Shows 99.2% purity  
**<sup>1</sup>H 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:**

2-Cl-IB-MECA is a high affinity and extremely selective A<sub>3</sub> adenosine receptor agonist (K<sub>i</sub> = 0.33 nM). Displays 2500- and 1400-fold selectivity over A<sub>1</sub> and A<sub>2A</sub> receptors respectively. Exhibits high selectivity over the Na<sup>+</sup>-independent adenosine transporter.

**Physical and Chemical Properties:**

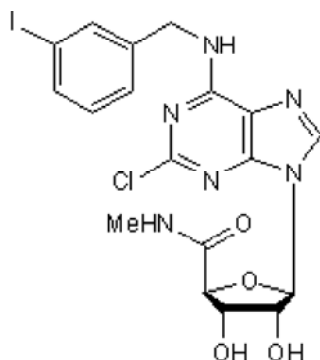
Batch Molecular Formula: C<sub>18</sub>H<sub>18</sub>ClIN<sub>6</sub>O<sub>4</sub>

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 A<sub>3</sub> 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 A<sub>3</sub> receptor agonist 2-Cl-IB-MECA in conscious rats. *Eur.J.Pharmacol.* **308** 311. PMID: 8858305.

**Kim et al** (1994) 2-Substitution of N<sup>6</sup>-benzyladenosine-5'-uronamides enhances selectivity for A<sub>3</sub> adenosine receptors. *J.Med.Chem.* **37** 3614. PMID: 7932588.

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