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DATASHEET

2-Chloroadenosine (CADO)

Product overview

Name	2-Chloroadenosine (CADO)
Cat No	HB2844
Alternative names	2-CADO
Biological action	Agonist
Purity	>99%
Description	Adenosine receptor agonist

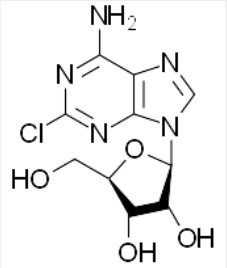
Biological Data

Biological description	Analog of adenosine. Adenosine receptor agonist (K_i values are 300, 80 and 1900 nM at A_1, A_{2A} and A_3 receptors resepectively. Shows anticonvulsant activity. Active *in vivo*. Also inhibits the induction of long-term potentiation (LTP).

Solubility & Handling

Storage instructions	+4°C
Solubility overview	Soluble in water (25mM) and in DMSO (100mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	6-Amino-2-chloropurine riboside
Molecular Weight	301.69
Chemical structure	
Molecular Formula	$C_{10}H_{12}ClN_5O_4$
CAS Number	146-77-0
PubChem identifier	8974
SMILES	C1=NC2=C(N1[C@H]3[C@@H]([C@@H]([C@H](O3)CO)O)O)N=C(N=C2N)Cl
InChi	InChI=1S/C10H12ClN5O4/c11-10-14-7(12)4-8(15-10)16(2-13-4)9-6(19)5(18)3(1-17)20-9/h2-3,5-6,9,17-19H,1H2,(H2,12,14,15)/t3-,5-,6-,9-/m1/s1
InChiKey	BIXYYZIIJIXVFW-UUOKFMHZSA-N
MDL number	MFCD00005734
Appearance	White solid

References

The protective effect of 2-chloroadenosine against the development of amygdala kindling and on amygdala-kindled seizures.

Abdul-Ghani et al (1997) Eur J Pharmacol. 326(1)
PubMedID 9178649

Pharmacokinetic-haemodynamic relationships of 2-chloroadenosine at adenosine A1 and A2a receptors in vivo.

Mathoot et al (1996) Br J Pharmacol 118(2)
PubMedID 8735640

Effects of 2-chloroadenosine on cortical epileptic afterdischarges in immature rats.

Pometlova et al (2010) Pharmacol Rep 62(1)
PubMedID 20360616

2-Chloroadenosine decreases long-term potentiation in the hippocampal CA1 area of the rat.

de Mendonca et al (1990) Neurosci Lett 118(1)
PubMedID 2259460