

Product Name: CGS 21680 hydrochloride

Catalog No.: 1063

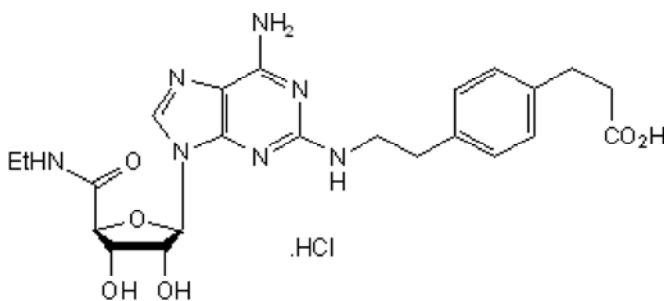
Batch No.: 16

CAS Number: 124431-80-7

IUPAC Name: 4-[2-[[6-Amino-9-(*N*-ethyl-β-D-ribofuranuronamidosyl)-9*H*-purin-2-yl]amino]ethyl]benzenepropanoic acid hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₂₃ H ₂₉ N ₇ O ₆ ·HCl·¾H ₂ O
Batch Molecular Weight:	549.5
Physical Appearance:	White solid
Solubility:	DMSO to 100 mM 2.25eq. NaOH to 100 mM
Storage:	Desiccate at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows >98.2% purity
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure
Microanalysis:	

	Carbon	Hydrogen	Nitrogen
Theoretical	50.27	5.78	17.84
Found	50.31	5.57	17.83

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

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Description:

CGS 21680 hydrochloride is a potent A_{2A} adenosine receptor agonist (K_i = 27 nM, EC₅₀ = 1.48-180 nM). CGS 21680 reduces venous resistance, increases heart rate and cardiac output in vivo. In an animal model of Huntington's disease, CGS21680 slows motor deterioration, prevents reduction in brain weight and reduces the size of mutant huntingtin aggregates and intranuclear inclusions. CGS21680 increases proliferation of neural progenitor cells, promotes survival of motoneurons and activates TrkB receptors. Also has anti-inflammatory effects in animal models of lung injury and reduces neurotoxicity induced by Kainate (Cat. No. 7065). Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

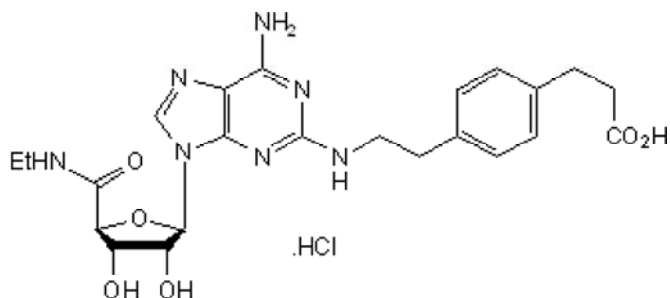
Batch Molecular Formula: C₂₃H₂₉N₇O₆.HCl.¾H₂O

Batch Molecular Weight: 549.5

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Komaki et al (2012) Trk and cAMP-dependent survival activity of adenosine A(2A) agonist CGS21680 on rat motoneurons in culture. *Neurosci.Lett.* **522** 21. PMID: 22691937.

Wiese et al (2007) Adenosine receptor A_{2A}-R contributes to motoneuron survival by transactivating the tyrosine kinase receptor TrkB. *Proc.Natl.Acad.Sci.U.S.A.* **104** 17210. PMID: 17940030.

Chou et al (2005) CGS21680 attenuates symptoms of Huntington's disease in a transgenic mouse model. *J.Neurochem.* **93** 310. PMID: 15816854.

Storage: Desiccate at -20°C

Solubility & Usage Info:

DMSO to 100 mM

2.25eq. NaOH 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.

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