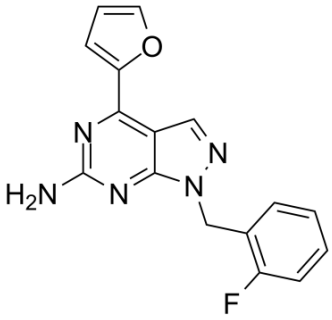
A2A receptor antagonist 1

Cat. No.:	HY-102024
CAS No.:	443103-97-7
Molecular Formula:	$C_{16}H_{12}FN_5O$
Molecular Weight:	309.3
Target:	Adenosine Receptor
Pathway:	GPCR/G Protein
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (80.83 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.2331 mL	16.1655 mL	32.3311 mL
	5 mM	0.6466 mL	3.2331 mL	6.4662 mL
	10 mM	0.3233 mL	1.6166 mL	3.2331 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (8.08 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (8.08 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (8.08 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

A2A receptor antagonist 1 (CPI-444 analog) is an antagonist of both adenosine A_{2A} receptor and A_1 receptor with K_i values of 4 and 264 nM, respectively[1].

IC_{50} & Target

Ki: 4 nM (adenosine A_{2A} receptor), 264 nM (A_1 receptor)[1]

In Vitro

A2A receptor antagonist 1 (CPI-444 analog) is a potent adenosine A_{2A} receptor antagonist, selective over the A1 receptor and demonstrates its binding activity with K_i values of 4 and 264 nM, respectively[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Gillespie RJ, et al. Antagonists of the human adenosine A2A receptor. Part 3: Design and synthesis of pyrazolo[3,4-d]pyrimidines, pyrrolo[2,3-d]pyrimidines and 6-arylpurines. Bioorg Med Chem Lett. 2008 May 1;18(9):2924-9.

Caution: Product has not been fully validated for medical applications. For research use only.

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