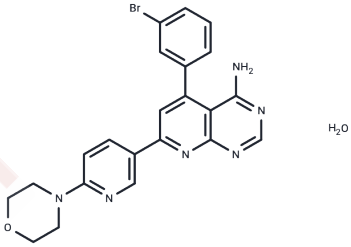
Data Sheet (Cat.No.T22554)

TargetMol

Adenosine Kinase Inhibitor (hydrate)

Chemical Properties



CAS No. :

Formula: C22H19BrN6O·0.4H2O

Molecular Weight: 470.5

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Adenosine kinase is the key metabolizing enzyme regulating cellular adenosine concentrations. Inhibition of adenosine kinase can selectively enhance the protective actions of adenosine during tissue trauma without producing the nonspecific effects associated with the systemic administration of adenosine receptor agonists (IC50: 1.7 nM in cell-free assays).
Targets(IC50)	Others
In vitro	Adenosine Kinase Inhibitor was found to be a potent non-nucleoside adenosine kinase inhibitor with several folds of magnitude selectivity over other sites of adenosine interaction. Adenosine Kinase Inhibitor was 1300- to 7700-fold selective for adenosine kinase compared with other neurotransmitters and peptide receptors, neurotransmitter/nucleoside reuptake sites, and enzymes. Adenosine Kinase Inhibitor was equipped in inhibiting native human adenosine kinase, human recombinant isoforms, as well as adenosine kinase from dog, rat, monkey, and mouse brain [1].
In vivo	Adenosine Kinase Inhibitor was orally active and efficacious in reducing acute somatic nociception in the mouse hot-plate assay. Adenosine Kinase Inhibitor could dose-dependently reduce nociception in the phenyl-p-quinone-induced abdominal constriction assay. The antinociceptive effects of Adenosine Kinase Inhibitor in the hotplate assay were stopped by the nonselective adenosine receptor antagonist theophylline, but not by a peripherally selective adenosine receptor antagonist [1].

Solubility Information

Solubility	DMSO: ≤30 mg/mL,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1254 mL	10.627 mL	21.254 mL
5 mM	0.4251 mL	2.1254 mL	4.2508 mL
10 mM	0.2125 mL	1.0627 mL	2.1254 mL
50 mM	0.0425 mL	0.2125 mL	0.4251 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Buang Y. Dietary adenine alleviates fatty liver induced by orotic acid. Indo. J. Chem. 2010; 10 (3): 363 - 369.
Módis K, Ger D, Nagy N, Szoleczky P, Tóth ZD and Szabó C. Cytoprotective effects of adenosine and inosine in an in vitro model of acute tubular necrosis. Br J Pharmacol. 2009 Nov; 158(6): 1565-8.