

CAY10680

Chemical Properties

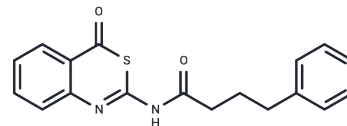
CAS No. : 1439488-21-7

Formula: C₁₈H₁₆N₂O₂S

Molecular Weight: 324.4

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	CAY10680 is a dopamine-sparing, benzothiazine compound that selectively inhibits both MAO-B activity (IC ₅₀ = 34.9 nM in human) and adenosine A _{2A} receptors (K _i = 39.5 nM in human). It demonstrates significantly less potent inhibitory values for other adenosine receptor subtypes (K _i s > 1 μM) and MAO-A (IC ₅₀ ≥ 10 μM). At 1-20 μM, CAY10680 has been shown to abolish cAMP accumulation in CHO cells transfected with adenosine A _{2A} receptors. In the central nervous system adenosine A _{2A} receptor expression is localized to dopamine-innervated areas where heteromeric complexes are formed with dopamine D ₂ receptors. Because inhibition of adenosine A _{2A} receptors has been shown to enhance D ₂ receptor function, the blockade of adenosine A _{2A} receptors has emerged as a potential treatment for Parkinson's disease. An additional strategy in the treatment of Parkinson's disease has been to block the activity of monoamine oxidase B (MAO-B), the enzyme involved in dopamine catabolism.
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Solubility Information

Solubility	DMF: 20 mg/mL DMSO: 15 mg/mL (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0826 mL	15.4131 mL	30.8261 mL
5 mM	0.6165 mL	3.0826 mL	6.1652 mL
10 mM	0.3083 mL	1.5413 mL	3.0826 mL
50 mM	0.0617 mL	0.3083 mL	0.6165 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

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