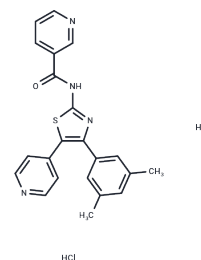


DPTN dihydrochloride

Chemical Properties

CAS No. :	325767-87-1
Formula:	C ₂₂ H ₂₀ Cl ₂ N ₄ O ₅
Molecular Weight:	459.39
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	DPTN dihydrochloride is a potent and selective A ₃ AR antagonist with K _i values of 1.65, 9.61 and 8.53 nM in human, mouse and rat, respectively.
Targets(IC ₅₀)	Adenosine Receptor
In vitro	DPTN dihydrochloride is a potent antagonist of human, mouse, and rat A ₃ AR. However, compared with human A ₃ AR, DPTN dihydrochloride has a weaker effect and reduced selectivity in mice and rats (approximately 20 times that of A ₂ BAR).[1] The binding affinity test of DNPT (10 μM) on the cell membrane of transfected HEK293 cells showed that its K _i values for hA ₁ , hA ₂ A, hA ₂ B and hA ₃ were 162±49, 121±42, 230±40 and 1.65±0.57 nM respectively[1]. The K _i values of DPTN dihydrochloride at A ₁ , A ₂ A, A ₂ B and A ₃ receptors are 411, 830, 189 and 9.61 nM (mouse); 333, 1147, 163 and 8.53 nM (rat) respectively.[1]

Solubility Information

Solubility	DMSO: 8.1 mg/mL (17.63 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1768 mL	10.884 mL	21.768 mL
5 mM	0.4354 mL	2.1768 mL	4.3536 mL
10 mM	0.2177 mL	1.0884 mL	2.1768 mL
50 mM	0.0435 mL	0.2177 mL	0.4354 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

Gao ZG, et al. Pharmacological characterization of DPTN and other selective A3 adenosine receptor antagonists. *Purinergic Signal*. 2021 Dec;17(4):737-746.

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