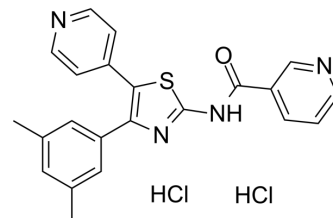


## DPTN dihydrochloride

<b>Cat. No.:</b>	HY-153152
<b>CAS No.:</b>	325767-87-1
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>20</sub> Cl <sub>2</sub> N <sub>4</sub> OS
<b>Molecular Weight:</b>	459.39
<b>Target:</b>	Adenosine Receptor
<b>Pathway:</b>	GPCR/G Protein
<b>Storage:</b>	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 5 mg/mL (10.88 mM; ultrasonic and warming and heat to 60°C)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	2.1768 mL	10.8840 mL	21.7680 mL	
5 mM	0.4354 mL	2.1768 mL	4.3536 mL	
10 mM	0.2177 mL	1.0884 mL	2.1768 mL	

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

### BIOLOGICAL ACTIVITY

#### Description

DPTN is a potent and selective human, mouse, and rat A<sup>3</sup>AR antagonist with K<sub>i</sub> values of 1.65, 9.61, and 8.53 nM, respectively [1].

#### IC<sub>50</sub> & Target

hA<sub>3</sub>  
1.65 nM (K<sub>i</sub>)

#### In Vitro

DPTN is indeed a potent antagonist for human, mouse, and rat A<sub>3</sub>ARs. DPTN is weaker at mouse and rat compared with human A<sub>3</sub>AR and has reduced selectivity (about 20-fold vs A<sub>2</sub>BAR). [1].  
The Binding affinity of BNPT (10 μM) is tested in membranes of transfected HEK293 cells, the K<sub>i</sub> values are 162 ± 49, 121 ± 42, 230 ± 40, and 1.65 ± 0.57 nM for hA<sub>1</sub>, hA<sub>2A</sub>, hA<sub>2B</sub>, and hA<sub>3</sub>, respectively [1].  
DPTN's K<sub>i</sub> values at respective A<sub>1</sub>, A<sub>2A</sub>, A<sub>2B</sub>, and A<sub>3</sub> receptors are 411, 830, 189, and 9.61 nM (mouse); and 333, 1147, 163, and 8.53 nM (rat) [1].  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

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

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