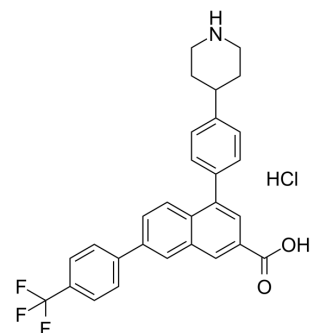


PPTN hydrochloride

Cat. No.:	HY-110322
CAS No.:	1992047-65-0
Molecular Formula:	C ₂₉ H ₂₅ ClF ₃ NO ₂
Molecular Weight:	511.96
Target:	P2Y Receptor
Pathway:	GPCR/G Protein
Storage:	4°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 : 250 mg/mL (488.32 mM; Need ultrasonic)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	1.9533 mL	9.7664 mL	19.5328 mL	
5 mM	0.3907 mL	1.9533 mL	3.9066 mL	
10 mM	0.1953 mL	0.9766 mL	1.9533 mL	

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

BIOLOGICAL ACTIVITY

Description

PPTN hydrochloride is a potent, high-affinity, competitive and highly selective P2Y14 receptor antagonist with a K_B value of 434 pM. PPTN hydrochloride exhibits no agonist or antagonist effect at the P2Y1, P2Y2, P2Y4, P2Y6, P2Y11, P2Y12, or P2Y13 receptors. Anti-inflammatory and anti-immune activity^[1].

IC₅₀ & Target

KB: 434 pM (P2Y14 receptor)^[1]

In Vitro

PPTN exhibits strong selectivity for the P2Y14-R over the other seven nucleotide-activated P2Y receptors. 1 μM PPTN exhibits no agonist or antagonist effect at the P2Y1, P2Y2, P2Y4, P2Y6, P2Y11, P2Y12, or P2Y13 receptors^[1]. PPTN inhibits UDP-glucose-promoted chemotaxis in differentiated HL-60 human promyelocytic leukemia cells with IC₅₀s of ~1 nM in the presence of 10 μM UDP-glucose and ~4 nM in the presence of 100 μM^[1]. PPTN (10 μM) significantly decreases the ratios of p-ERK1/2 to ERK1/2 and p-p38 to p38^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

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- Int Immunopharmacol. 2022 Nov 30;114:109507.

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REFERENCES

[1]. Barrett MO, et al. A selective high-affinity antagonist of the P2Y14 receptor inhibits UDP-glucose-stimulated chemotaxis of human neutrophils. Mol Pharmacol. 2013 Jul;84(1):41-9.

[2]. Lin J, et al. The P2Y14 receptor in the trigeminal ganglion contributes to the maintenance of inflammatory pain. Neurochem Int. 2019 Dec;131:104567.

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

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