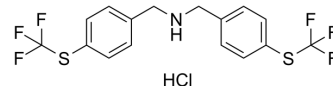


MY33-3 hydrochloride

Cat. No.:	HY-123966A
CAS No.:	2204280-42-0
Molecular Formula:	C ₁₆ H ₁₄ ClF ₆ NS ₂
Molecular Weight:	433.86
Target:	Phosphatase
Pathway:	Metabolic Enzyme/Protease
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 : 25 mg/mL (57.62 mM; ultrasonic and warming and heat to 60°C)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	2.3049 mL	11.5245 mL	23.0489 mL	
5 mM	0.4610 mL	2.3049 mL	4.6098 mL	
10 mM	0.2305 mL	1.1524 mL	2.3049 mL	

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

BIOLOGICAL ACTIVITY

Description

MY33-3 hydrochloride is a potent and selective inhibitor of receptor protein tyrosine phosphatase (RPTP)β/ζ, with an IC₅₀ of ~0.1 μM. MY33-3 hydrochloride also inhibits PTP-1B (IC₅₀ ~0.7 μM). MY33-3 hydrochloride can reduce ethanol consumption and alleviate Sevoflurane-induced neuroinflammation and cognitive dysfunction^{[1][2][3]}.

In Vitro

MY33-3 hydrochloride (1 μM; pretreated for 5 min) blocks Ethanol-induced activation of TrkA and ALK in SH-SY5Y cells^[1]. MY33-3 hydrochloride (0.1-10 μM; 24 h) limits LPS-induced nitrites production and iNos increases in BV2 microglial cells^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

MY33-3 hydrochloride (60 mg/kg; p.o. on days 3 and 4) reduces ethanol consumption when comparing day 2 with day 3. MY33-3 hydrochloride reduces preference for the ethanol solution on day 3^[1]. MY33-3 hydrochloride (i.p.) reverses the Sevoflurane-induced decrease in the discrimination index and impaired motor learning ability^[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

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- [1]. Fernández-Calle R, et, al. Pharmacological inhibition of Receptor Protein Tyrosine Phosphatase β/ζ (PTPRZ1) modulates behavioral responses to ethanol. *Neuropharmacology*. 2018 Jul 15;137:86-95.
- [2]. Fernández-Calle R, et, al. Role of RPTP β/ζ in neuroinflammation and microglia-neuron communication. *Sci Rep*. 2020 Nov 20;10(1):20259.
- [3]. Mao S, et, al. Pleiotrophin Potentiates Sevoflurane Anesthesia-induced Learning Deficits in Mice. *J Mol Neurosci*. 2022 Jan;72(1):48-55.
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA