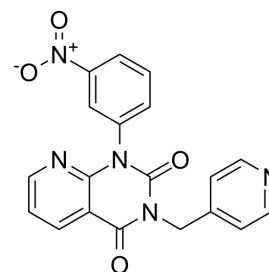


RS-25344 hydrochloride

Cat. No.:	HY-108621
CAS No.:	152815-28-6
Molecular Formula:	C ₁₉ H ₁₄ ClN ₅ O ₄
Molecular Weight:	411.8
Target:	Phosphodiesterase (PDE)
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)



H-Cl

SOLVENT & SOLUBILITY

In Vitro	DMSO : 83.33 mg/mL (202.36 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	2.4284 mL	12.1418 mL	24.2836 mL
		5 mM	0.4857 mL	2.4284 mL	4.8567 mL
	10 mM	0.2428 mL	1.2142 mL	2.4284 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (5.05 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (5.05 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (5.05 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	RS-25344 hydrochloride is a selective cAMP-phosphodiesterase 4 (PDE 4; PDE IV) inhibitor with an IC ₅₀ of 0.28 nM in human lymphocytes. RS-25344 hydrochloride has only weak inhibitory effects on PDE I, II, III (IC ₅₀ of >100 μM, 160 μM, 330 μM, respectively). RS-25344 hydrochloride has anti-inflammatory, memory- and cognition enhancing, and antineoplastic effects [1][2].			
IC₅₀ & Target	PDE ⓧ 0.28 nM (IC ₅₀)	PDE ⓧ >100 μM (IC ₅₀)	PDE ⓧ 160 μM (IC ₅₀)	PDE ⓧ 330 μM (IC ₅₀)
In Vitro	RS-25344 hydrochloride (0-10 μM) is a potent inhibitor of sperm PDE activity, with an effective concentration of 0.3 nM and			

reaching maximum inhibition in the range of 100 nM^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

RS-25344 hydrochloride (5 mg/kg; i.p.; twice daily for 72 h) results in significant increases in stomach weights in wild type C57BL/6 mice^[3].

RS-25344 hydrochloride (1 mg/kg; i.p.; 30 min prior to food bolus) increases gastric retention in mice^[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Will McDonough, et al. PAN-selective inhibition of cAMP-phosphodiesterase 4 (PDE4) induces gastroparesis in mice. *FASEB J.* 2020 Sep;34(9):12533-12548.

[2]. J D Fisch, et al. Enhancement of motility and acrosome reaction in human spermatozoa: differential activation by type-specific phosphodiesterase inhibitors. *Hum Reprod.* 1998 May;13(5):1248-54.

[3]. T Kaneko, et al. Elevated intracellular cyclic AMP inhibits chemotaxis in human eosinophils. *Cell Signal.* 1995 Jul;7(5):527-34.

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