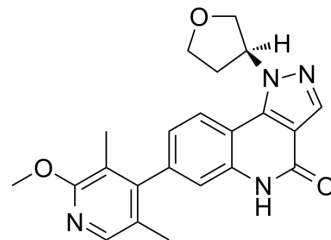


Irsonontrine

Cat. No.:	HY-132821
CAS No.:	1429509-82-9
Molecular Formula:	C ₂₂ H ₂₂ N ₄ O ₃
Molecular Weight:	390.44
Target:	Phosphodiesterase (PDE)
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 12.5 mg/mL (32.02 mM; warming and heat to 60°C)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	2.5612 mL	12.8061 mL	25.6121 mL
5 mM		0.5122 mL	2.5612 mL	5.1224 mL	
	10 mM	0.2561 mL	1.2806 mL	2.5612 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: ≥ 1.25 mg/mL (3.20 mM); Suspended solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1.25 mg/mL (3.20 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1.25 mg/mL (3.20 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Irsonontrine (E2027) is an orally active and selective phosphodiesterase 9 (PDE9) inhibitor. Irsonontrine can be used for the research of neurological diseases ^{[1][2][3]} .
IC₅₀ & Target	PDE9 ^[1]
In Vitro	Irsonontrine (E2027) is an orally active and selective phosphodiesterase 9 (PDE 9) inhibitor ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Irsonontrine (0.3, 3.3 mg/kg; p.o.) exhibits a significant ameliorative effect on the percentage of exploration of the novel object at 3.3 mg/kg in Scopolamine-induced rats^[1].

Irsonontrine (1 mg/kg; p.o.) and memantine hydrochloride (1 mg/kg; p.o.) combined treatment group exhibits a significantly higher percentage of exploration of the novel object than memantine hydrochloride (1 mg/kg) alone^[1].

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

REFERENCES

- [1]. Miyamoto, et al. Dementia therapeutic agent combining pyrazoloquinoline derivative and memantine. WO2018221550 A1
- [2]. Hershey LA, et al. Pharmacological Management of Dementia with Lewy Bodies. *Drugs Aging*. 2019;36(4):309-319.
- [3]. Eisai to present latest research on Alzheimer's disease / dementia pipeline at the 14th international conference on Alzheimer's & Parkinson's diseases

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

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