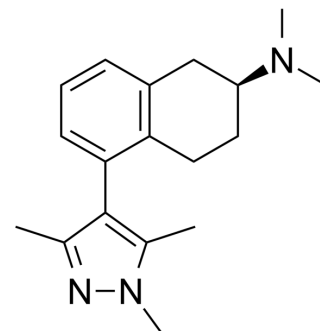


AS19

Cat. No.:	HY-103142		
CAS No.:	1000578-26-6		
Molecular Formula:	C ₁₈ H ₂₅ N ₃		
Molecular Weight:	283.41		
Target:	5-HT Receptor		
Pathway:	GPCR/G Protein; Neuronal Signaling		
Storage:	Pure form	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (352.85 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		3.5285 mL	17.6423 mL	35.2846 mL
		5 mM		0.7057 mL	3.5285 mL	7.0569 mL
	10 mM		0.3528 mL	1.7642 mL	3.5285 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: ≥ 2.5 mg/mL (8.82 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.82 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.82 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	AS19 is a potent, selective 5-HT ₇ receptor agonist with an IC ₅₀ value of 0.83 nM and a K _i of 0.6 nM. AS19 is selective for 5-HT ₇ over 5-HT _{1A} , 5-HT _{1B} , 5-HT _{1D} , and 5-HT _{5A} receptors (K _i s = 89.7 nM, 490 nM, 6.6 nM and 98.5 nM, respectively). AS19 enhances memory consolidation and reverses Scopolamine- or Dizocilpine-induced amnesia ^{[1][2][3]} .			
IC₅₀ & Target	Human 5-HT ₇ Receptor 0.83 nM (IC ₅₀)	Human 5-HT ₇ Receptor 0.6 nM (K _i)	5-HT _{1A} Receptor 89.7 nM (K _i)	5-HT _{1B} Receptor 490 nM (K _i)
	5-HT _{1D} Receptor 6.6 nM (K _i)	5-HT ₅ Receptor 98.5 nM (K _i)		

In Vitro	<p>The proliferation of T-cell from parachlorophenylalanine-treated mice is significantly reduced, addition of AS19 (1 μM) completely restores T-cell proliferation after 48 hours^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>	
In Vivo	<p>AS19 (0.5-10 mg/kg; subcutaneous injection; for 24 hours; male Wistar rats) treatment improves memory consolidation in an autoshaping Pavlovian/instrumental learning task^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>	
	Animal Model:	Male Wistar rats (12-week-old) with autoshaping Pavlovian/instrumental learning task ^[1]
	Dosage:	0.5 mg/kg, 1 mg/kg, 5 mg/kg, 10 mg/kg
	Administration:	Subcutaneous injection; for 24 hours
	Result:	Enhanced memory formation in an autoshaping Pavlovian/instrumental learning task.

REFERENCES

- [1]. Perez-García GS, et al. Effects of the potential 5-HT7 receptor agonist AS 19 in an autoshaping learning task. *Behav Brain Res.* 2005 Aug 30;163(1):136-40.
- [2]. León-Ponte M, et al. Serotonin provides an accessory signal to enhance T-cell activation by signaling through the 5-HT7 receptor. *Blood.* 2007 Apr 15;109(8):3139-46.
- [3]. Brenchat A, et al. 5-HT7 receptor activation inhibits mechanical hypersensitivity secondary to capsaicin sensitization in mice. *Pain.* 2009 Feb;141(3):239-47.

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

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