Intepirdine

Cat. No.: HY-14339

CAS No.: 607742-69-8

Molecular Formula: $C_{19}H_{19}N_3O_2S$

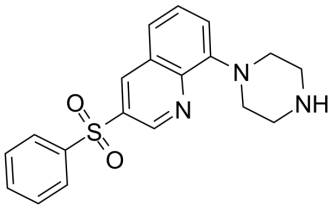
Molecular Weight: 353.44

Target: 5-HT Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (141.47 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8293 mL	14.1467 mL	28.2933 mL
	5 mM	0.5659 mL	2.8293 mL	5.6587 mL
	10 mM	0.2829 mL	1.4147 mL	2.8293 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 (7.07 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.07 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Intepirdine (SB742457) is a highly selective 5-HT6 receptor antagonist with pKi of 9.63; exhibits >100-fold selectivity over other receptors.

IC_{50} & Target

$5\text{-}HT_6$ Receptor
9.63 (pKi)

In Vitro

Intepirdine (SB742457), a 5-HT6 receptor antagonist, which extends into Alzheimer disease (AD) sufferers further highlights the therapeutic promise of this mechanistic approach. Alzheimer's disease is a devastating neurological condition characterized by a progressive decline in cognitive performance accompanied by behavioral and psychological syndromes, such as depression and psychosis. With the subsequent development of selective 5-HT6 receptor antagonists, preclinical

studies in rodents and primates have elucidated the function of this receptor subtype in more detail. It is increasingly clear that blockade of 5-HT6 receptors leads to an improvement of cognitive performance in a wide variety of learning and memory paradigms and also results in anxiolytic and antidepressant-like activity. Intepirdine (SB742457) is generally safe and well tolerated and may be efficacious in Alzheimer disease.

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

CUSTOMER VALIDATION

- Protein Cell. 2019 Mar;10(3):178-195.
- EMBO Rep. 2022 Apr 11;e53932.

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REFERENCES

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[3]. Maher-Edwards G, Dixon R, Hunter J, et al. SB-742457 and donepezil in Alzheimer disease: a randomized, placebo-controlled study. Int J Geriatr Psychiatry. 2011 May;26(5):536-44.

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