Perospirone

Cat. No.: HY-B0731A

CAS No.: 150915-41-6

Molecular Formula: $C_{23}H_{30}N_4O_2S$

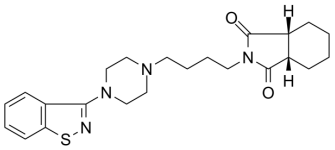
Molecular Weight: 426.57

Target: 5-HT Receptor; Dopamine 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 : 5 mg/mL (11.72 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.3443 mL	11.7214 mL	23.4428 mL
5 mM	0.4689 mL	2.3443 mL	4.6886 mL
10 mM	0.2344 mL	1.1721 mL	2.3443 mL

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

BIOLOGICAL ACTIVITY

Description

Perospirone (SM-9018 free base) is an orally active antagonist of 5-HT_{2A} receptor (K_i=0.6 nM) and dopamine D_2 receptor (K_i =1.4 nM), and also a partial agonist of 5-HT_{1A} receptor (K_i=2.9 nM). Perospirone is an atypical antipsychotic agent and has the potential for schizophrenic disease research[1][2].

IC_{50} & Target

5-HT_{2A} Receptor 0.6 nM (Ki)	Dopamine D_2 1.4 nM (Ki)	5-HT_{1A} Receptor 2.9 nM (Ki)	5-HT_1 Receptor 18 nM (Ki)
Dopamine D_1 41 nM (Ki)			

In Vitro

Perospirone (SM-9018 free base) possesses moderate affinities for α_1, 5-HT_1, and D_1 receptors (K_i=17, 18 and 41 nM, respectively) [1].

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

In Vivo

Perospirone (SM-9018 free base; 1.0-10.0 mg/kg/day; orally; for 14 consecutive days) significantly attenuates PCP-induced

cognitive deficits in mice in a dose-dependent manner[2].

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

Animal Model:	Male ICR mice (6 weeks old) weighing 25-30 g[2]
Dosage:	1.0, 3.0 or 10.0 mg/kg
Administration:	Orally; daily; for 14 consecutive days
Result:	Significantly attenuated PCP-induced cognitive deficits in mice in a dose-dependent manner.

REFERENCES

[1]. Kato T, et al. Binding profile of SM-9018, a novel antipsychotic candidate. pn J Pharmacol. 1990 Dec;54(4):478-81.

[2]. Hagiwara H, et al. Phencyclidine-induced cognitive deficits in mice are improved by subsequent subchronic administration of the antipsychotic drug perospirone: role of serotonin 5-HT1A receptors. Eur Neuropsychopharmacol. 2008 Jun;18(6):448-54.

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