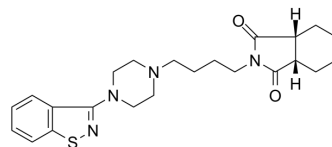


Perospirone

Cat. No.:	HY-B0731A		
CAS No.:	150915-41-6		
Molecular Formula:	C ₂₃ H ₃₀ N ₄ O ₂ S		
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	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 5 mg/mL (11.72 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	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 D₂ 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]}.

IC₅₀ & Target

5-HT _{2A} Receptor 0.6 nM (K _i)	Dopamine D ₂ 1.4 nM (K _i)	5-HT _{1A} Receptor 2.9 nM (K _i)	5-HT ₁ Receptor 18 nM (K _i)
Dopamine D ₁ 41 nM (K _i)			

In Vitro

Perospirone (SM-9018 free base) possesses moderate affinities for α₁, 5-HT₁, and D₁ 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-HT_{1A} receptors. *Eur Neuropsychopharmacol.* 2008 Jun;18(6):448-54.

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