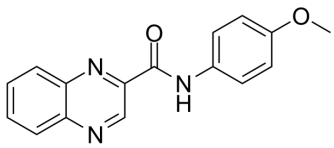
5-HT3 antagonist 5

Cat. No.:	HY-148038
CAS No.:	901599-43-7
Molecular Formula:	$C_{16}H_{13}N_3O_2$
Molecular Weight:	279.29
Target:	5-HT 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 : 20.83 mg/mL (74.58 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.5805 mL	17.9025 mL	35.8051 mL
	5 mM	0.7161 mL	3.5805 mL	7.1610 mL
	10 mM	0.3581 mL	1.7903 mL	3.5805 mL

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

BIOLOGICAL ACTIVITY

Description

5-HT3 antagonist 5 is a quinoxalin-2-carboxamide compound, a 5-HT_3 receptor antagonist. 5-HT3 antagonist 5 exerts antagonism on 5-HT_3 agonist and 2-methyl-5-HT, and shows anti-depressant effect in mice[1].

IC_{50} & Target

5-HT_3 Receptor

In Vitro

5-HT3 antagonist 5 (compound 4c) exhibits 5-HT_3 receptor antagonisms in longitudinal muscle myenteric plexus preparation from guinea pig ileum against 5-HT_3 agonist, 2-methyl-5-HT, with pA_2 value of 5[1].

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

In Vivo

5-HT3 antagonist 5 (compound 4c) (1 mg/kg; i.p.; single dose) decreases the duration of immobility and shows anti-depressant effect in FST mice[1].

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

Animal Model:	Swiss albino mice (23 ± 2 g)[1]

Dosage:	1 mg/kg
Administration:	Intraperitoneal injection; single dose; locomotor scores tested 10 min after administration
Result:	Reduced the duration of immobility as compared to the vehicle-treated (control) group. Showed no effect on the locomotion of mice as observed in spontaneous locomotor activity.

REFERENCES

[1]. Mahesh R, et al. Design, synthesis and structure-activity relationship of novel quinoxalin-2-carboxamides as 5-HT3 receptor antagonists for the management of depression. Bioorg Med Chem Lett. 2010 Nov 15;20(22):6773-6.

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