(Rac)-WAY-161503

Cat. No.: HY-103138A

CAS No.: 75704-24-4

Molecular Formula: $C_{11}H_{11}Cl_2N_3O$

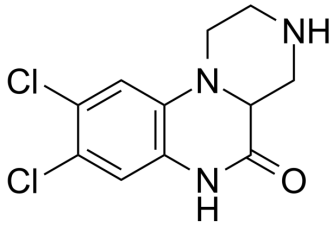
Molecular Weight: 272.13

Target: 5-HT Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (367.47 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.6747 mL	18.3736 mL	36.7471 mL
	5 mM	0.7349 mL	3.6747 mL	7.3494 mL
	10 mM	0.3675 mL	1.8374 mL	3.6747 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 (9.19 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.19 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.19 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(Rac)-WAY-161503 is a potent, selective, highly affinity 5-HT_{2C} receptor agonist with a K_i of 4 nM and an EC_{50} of 12 nM. (Rac)-WAY-161503 displays higher affinity for 5-HT_{2C} than 5-HT_{2A} and 5-HT_{2B} receptors. (Rac)-WAY-161503 has anti-obesity and antidepressant effects[1][2].

IC_{50} & Target		
	5-HT_{2C} Receptor 4 nM (Ki)	5-HT_{2C} Receptor 12 nM (EC50)

In Vivo

(Rac)-WAY-161503 (3-30 mg/kg; intraperitoneal injection; male C57BL/6J mice) dose-dependently decreases locomotor

activity, an effect that is blocked by the 5-$HT_{2C/2B}$ antagonist SER-082[1].

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

Animal Model:	Male C57BL/6J mice with hallucinogen 1-(2,5-dimethoxy-4-iodophenyl)-2-aminopropane (DOI)[1]
Dosage:	3 mg/kg, 10 mg/kg, 30 mg/kg
Administration:	Intraperitoneal injection (i.p.)
Result:	Dose-dependently decreased locomotor activity, an effect that was blocked by the 5-$HT_{2C/2B}$ antagonist SER-082.

REFERENCES

[1]. Halberstadt AL, et al. 5-HT(2A) and 5-HT(2C) receptors exert opposing effects on locomotor activity in mice. Neuropsychopharmacology. 2009 Jul;34(8):1958-67.

[2]. Welmaker GS, et al. Synthesis and 5-hydroxytryptamine (5-HT) activity of 2,3,4,4a-tetrahydro-1H-pyrazino[1,2-a]quinoxalin-5-(6H)ones and 2,3,4,4a,5,6-hexahydro-1H-pyrazino[1,2-a]quinoxalines. Bioorg Med Chem Lett. 2000 Sep 4;10(17):1991-4.

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