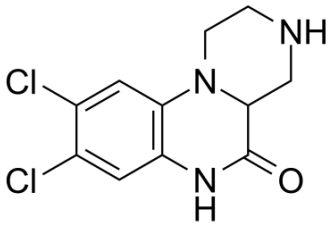
(Rac)-WAY-161503

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



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) treatment dose-dependently decreases locomotor activity, an effect that is blocked by the 5-$HT_{2C/2B}$ antagonist SER-082. Additionally, the decreased locomotor activity produced by 10 mg/kg DOI is potentiated in the 5-HT_{2A} KO mice[1].

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
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.

Caution: Product has not been fully validated for medical applications. For research use only.

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