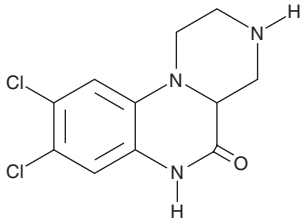
PRODUCT INFORMATION

WAY-161503

Item No. 17269

CAS Registry No.:	75704-24-4
Formal Name:	8,9-dichloro-2,3,4,4a-tetrahydro-1*H*-pyrazino[1,2-a]quinoxalin-5(6*H*)-one
MF:	$C_{11}H_{11}Cl_2N_3O$
FW:	272.1
Purity:	≥98%
UV/Vis.:	λ_{max}: 230 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

WAY-161503 is supplied as a crystalline solid. A stock solution may be made by dissolving the WAY-161503 in the solvent of choice, which should be purged with an inert gas. WAY-161503 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of WAY-161503 in these solvents is approximately 1, 25, and 30mg/ml, respectively.

WAY-161503 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, WAY-161503 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. WAY-161503 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

WAY-161503 is a full agonist of 5-HT_{2C} receptors (K_i = 3.3 nM for displacement of DOI (Item No. 13885)).[1] Relative to 5-HT_{2C} receptor binding, WAY-161503 is ~6-fold less potent at 5-HT_{2A} receptors (K_i = 18 nM) and 20-fold less potent at 5-HT_{2B} receptors (K_i = 60 nM).[1] In functional studies, WAY-161503 can stimulate calcium mobilization coupled to 5-$HT_{2C, 2B,}$ and $_{2A}$ receptors with EC_{50} values of 0.8, 1.8, and 7 nM, respectively.[1] WAY-161503 has been reported to produce dose-dependent decreases in food intake in 24-hour fasted normal Sprague-Dawley rats, diet-induced obese mice, and obese Zucker rats with ED_{50} values of 1.9, 6.8, and 0.73 mg/kg, respectively.[1] This compound has been used to examine the role of 5-HT_{2C} receptors in rodent models of depression, locomotion, reinforcement, or motivated behaviors.[2,3]

References

1. Rosenzweig-Lipson, S., Zhang, J., Mazandarani, H., *et al*. Antiobesity-like effects of the 5-HT_{2C} receptor agonist WAY-161503. *Brain Res.* **1073-1074**, 240-251 (2006).
2. Cryan, J.F. and Lucki, I. Antidepressant-like behavioral effects mediated by 5-Hydroxytryptamine$_{2C}$ receptors. *J. Pharmacol. Exp. Ther.* **295(3)**, 1120-1126 (2000).
3. Hayes, D.J., Mosher, T.M., and Greenshaw, A.J. Differential effects of 5-HT_{2C} receptor activation by WAY 161503 on nicotine-induced place conditioning and locomotor activity in rats. *Behav. Brain Res.* **197(2)**, 323-330 (2009).

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