# PRODUCT INFORMATION



WAY-161503

Item No. 17269

CAS Registry No.: 75704-24-4

Formal Name: 8,9-dichloro-2,3,4,4a-tetrahydro-

1H-pyrazino[1,2-a]quinoxalin-

5(6H)-one

MF:  $C_{11}H_{11}CI_2N_3O$ 

FW: 272.1 **Purity:** ≥98% UV/Vis.:  $\lambda_{max}$ : 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<sub>2C</sub> receptor binding, WAY-161503 is ~6-fold less potent at 5-HT<sub>2A</sub> receptors ( $K_i = 18 \text{ nM}$ ) and 20-fold less potent at 5-HT<sub>2B</sub> receptors ( $K_i = 60 \text{ nM}$ ).<sup>1</sup> In functional studies, WAY-161503 can stimulate calcium mobilization coupled to 5-HT<sub>2C, 2B</sub>, and <sub>2A</sub> receptors with EC<sub>50</sub> 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<sub>50</sub> values of 1.9, 6.8, and 0.73 mg/kg, respectively. This compound has been used to examine the role of 5-HT $_{2C}$  receptors in rodent models of depression, locomotion, reinforcement, or motivated behaviors.<sup>2,3</sup>

## References

- 1. Rosenzweig-Lipson, S., Zhang, J., Mazandarani, H., et al. Antiobesity-like effects of the 5-HT<sub>2C</sub> receptor agonist WAY-161503. Brain Res. 1073-1074, 240-251 (2006).
- Cryan, J.F. and Lucki, I. Antidepressant-like behavioral effects mediated by 5-Hydroxytryptamine<sub>2C</sub> 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<sub>2C</sub> receptor activation by WAY 161503 on nicotine-induced place conditioning and locomotor activity in rats. Behav. Brain Res. **197(2)**, 323-330 (2009).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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