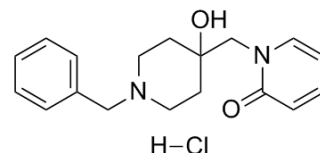


Data Sheet

Product Name:	YL0919
Cat. No.:	HY-100769
CAS No.:	1339058-04-6
Molecular Formula:	C ₁₈ H ₂₃ ClN ₂ O ₂
Molecular Weight:	334.84
Target:	5-HT Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Solubility:	DMSO: ≥ 30 mg/mL



BIOLOGICAL ACTIVITY:

YL0919, a novel antidepressant candidate with dual activity as a 5-HT_{1A} receptor agonist and a selective serotonin reuptake inhibitor, the IC₅₀ values of YL-0919 inhibiting the uptake of 5-HT into rat cerebral cortical synaptosomes and human recombinant cells were 1.78±0.34 nM and 1.93±0.18 nM respectively.

target: 5-HT_{1A} receptor

IC₅₀:1.78±0.34 nM(rat cerebral cortical synaptosomes) IC₅₀:1.93±0.18 nM(human recombinant cells)[1]"

In vivo: WAY-100635 completely antagonized the antidepressant-like activity of YL-0919 in both behavioral models, suggesting that activation of the 5-HT_{1A} receptor is critical in the antidepressant-like effect of YL-0919. The administered dose of WAY-100635 ranged from 0.1–0.3 mg/kg, which reportedly has no effect on locomotor activity and only blocks the activation of 5-HT_{1A} receptor.[2]

PROTOCOL (Extracted from published papers and Only for reference)

Animal administration [2]: The forced swimming test was performed following the procedures as described previously. Briefly, 60 min after i.g. drug administration, the mice were individually forced to swim in an open cylindrical container (diameter 14 cm, height 20 cm, containing 12 cm of water maintained at 24 °C). The duration of immobility in the last 4 min of total 6 min test was recorded. Mice were considered immobile when they ceased struggling and remained floating motionless in the water, making only those movements necessary to keep their head above water. To investigate the possible involvement of 5-HT_{1A} receptors in the behavioral effects of YL-0919, mice were treated with WAY-100635 (0.1, 0.3 mg/kg, s.c.) in combination with YL-0919 (2.5 mg/kg, i.g.), and the TST or FST was carried out 60 min later. The dose of WAY-100635 used was based on our previous study.

References:

[1]. Chen, H. X. et al. Antidepressant-like activity of YL-0919: a novel combined selective serotonin reuptake inhibitor and 5-HT_{1A} receptor agonist. PloS one 8, e83271, doi:10.1371/journal.pone.0083271 (2013).

[2]. Qin, J. J. et al. The role of activation of the 5-HT_{1A} receptor and adenylate cyclase in the antidepressant-like effect of YL-0919, a dual 5-HT_{1A} agonist and selective serotonin reuptake inhibitor. Neuroscience letters 582, 104–108, 2014.09.009 (2014)

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

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