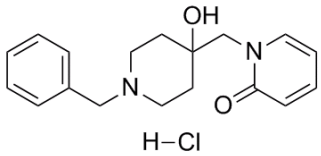
Data Sheet

Product Name:	YL0919
Cat. No.:	HY-100769
CAS No.:	1339058-04-6
Molecular Formula:	$C_{18}H_{23}ClN_2O_2$
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–HT1A 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–HT1A 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–HT1A 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–HT1A 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–HT1A 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–HT1A 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–HT1A receptor and adenylate cyclase in the antidepressant–like effect of YL–0919, a dual 5–HT1A agonist and selective serotonin reuptake inhibitor. Neuroscience letters 582, 104–108, 2014.09.009 (2014)

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