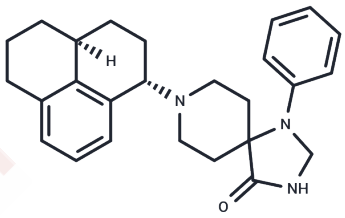
Data Sheet (Cat.No.T16772)

TargetMol

Ro 64-6198

Chemical Properties



CAS No. : 280783-56-4

Formula: C26H31N3O

Molecular Weight: 401.54

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Ro 64-6198 is a nonpeptide, high-affinity, and brain penetration N/OFQ receptor (NOP) agonist (EC50: 25.6 nM). Ro 64-6198 is at least 100 times more selective for the NOP receptor over the classic opioid receptors.
Targets(IC50)	Others
In vitro	Ro 64-6198 does recruit both arrestin3 (EC50 of 0.912 μM) and arrestin2 (EC50: 1.20 μM) to the NOP receptor in a concentration-dependent manner comparably with N/OFQ. Ro 64-6198 also produces rapid desensitization of the NOP receptor. Ro 64-6198 causes functional desensitization of the receptor, a loss in binding sites, and an apparent decrease in binding affinity. The desensitization produced by Ro 64-6198 is not reversed by acidic washes [1][2].
In vivo	Ro 64-6198 is anxiolytic in several neophobic tests at low doses, including the marble burying test in mice, the elevated plus-maze in rats, and the open field test in rats. In the marble burying test, Ro 64-6198 (1 mg/kg, i.p.,) produces a decrease in the number of marbles buried, without altering locomotor activity, indicating a decrease in neophobia and anxiety. Ro 64-6198 (0.32-3 mg/kg, i.p.,) selectively increases the number of open arm transitions and time spent in the open arms of the elevated plus-maze without affecting closed-arm transitions or locomotor activity in the closed arms. Ro 64-6198 (0.32-3 mg/kg) attenuates the inhibition of exploration that results from the stress of a novel environment [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4904 mL	12.4521 mL	24.9041 mL
5 mM	0.4981 mL	2.4904 mL	4.9808 mL
10 mM	0.249 mL	1.2452 mL	2.4904 mL
50 mM	0.0498 mL	0.249 mL	0.4981 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Shoblock JR. The pharmacology of Ro 64-6198, a systemically active, nonpeptide NOP receptor (opiate receptor-like 1, ORL-1) agonist with diverse preclinical therapeutic activity. CNS Drug Rev. 2007 Spring;13(1):107-36.
Chang SD, et al. Novel Synthesis and Pharmacological Characterization of NOP Receptor Agonist 8-[(1S,3aS)-2,3,3a,4,5,6-Hexahydro-1H-phenalen-1-yl]-1-phenyl-1,3,8-triazaspiro[4.5]decan-4-one (Ro 64-6198). ACS Chem Neurosci. 2015 Dec 16;6(12):1956-64.

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