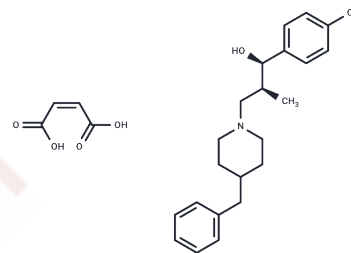


Ro 25-6981 Maleate

Chemical Properties

CAS No. : 1312991-76-6
 Formula: C₂₆H₃₃N₀O₆
 Molecular Weight: 455.54
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

| | |
|----------------------------|---|
| Description | Ro 25-6981 Maleate is a potent and selective activity-dependent NMDA receptor blocker, specifically targeting the NR2B subunit (IC ₅₀ values are 0.009 μM for NR1C/NR2B and 52 μM for NR1C/NR2A receptor subunit combinations). |
| Targets(IC ₅₀) | NMDAR, iGluR |
| In vivo | In 6-OHDA-lesioned rats, Ro 25-6981 Maleate (0.39-12.5 mg/kg; intraperitoneal injection) dose-dependently induces contralateral tight nose-to-tail rotations and elicits a weak ipsilateral circling response, indicating a mild nonspecific stimulatory action of the compound[1]. |

Solubility Information

| | |
|---------------------|--|
| Solubility | H ₂ O: 4 mg/mL (8.78 mM), Sonication is recommended. DMSO: 61 mg/mL (133.91 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (10.98 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|-----------|-----------|
| 1 mM | 2.1952 mL | 10.976 mL | 21.952 mL |
| 5 mM | 0.439 mL | 2.1952 mL | 4.3904 mL |
| 10 mM | 0.2195 mL | 1.0976 mL | 2.1952 mL |
| 50 mM | 0.0439 mL | 0.2195 mL | 0.439 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- Löschmann PA, et al. Antiparkinsonian activity of Ro 25-6981, a NR2B subunit specific NMDA receptor antagonist, in animal models of Parkinson's disease. *Exp Neurol.* 2004 May;187(1):86-93.
- Szczurowska E, et al. Different action of a specific NR2B/NMDA antagonist Ro 25-6981 on cortical evoked potentials and epileptic afterdischarges in immature rats. *Brain Res Bull.* 2015 Feb;111:1-8.
- Jiang M, et al. Antinociception and prevention of hyperalgesia by intrathecal administration of Ro 25-6981, a highly selective antagonist of the 2B subunit of N-methyl-D-aspartate receptor. *Pharmacol Biochem Behav.* 2013 Nov;112:56-63.

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