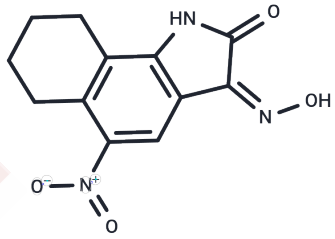
Data Sheet (Cat.No.T38779)

TargetMol

NS-102

Chemical Properties



CAS No. : 136623-01-3

Formula: C12H11N3O4

Molecular Weight: 261.23

Appearance: Solid

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

Biological Description

Description	NS-102 is a glutamate receptor and NMDA receptor antagonist that inhibits erythrocyanine (GluK2), which reduces glur6 receptor-mediated currents, and inhibits specific binding to the glur6 receptor.
Targets(IC50)	GluR,NMDAR,iGluR
In vitro	NS-102, an AMPA receptor antagonist, when used in combination with GYKI 52466 (30 μM) at a concentration of 10 μM, prevents complete loss of compound action potentials (CAP) during oxygen and glucose deprivation (OGD), and enhances the recovery of CAP amplitude [1].
In vivo	NS-102 (20, 40, or 80 μmol/litre; in the hippocampal CA3 region) significantly reduces Sevoflurane-induced hyperactivities[1].

Solubility Information

Solubility	DMSO: 2 mg/mL (7.66 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.828 mL	19.1402 mL	38.2804 mL
5 mM	0.7656 mL	3.828 mL	7.6561 mL
10 mM	0.3828 mL	1.914 mL	3.828 mL
50 mM	0.0766 mL	0.3828 mL	0.7656 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

Selva Baltan Tekkök, et al. Excitotoxic mechanisms of ischemic injury in myelinated white matter. J Cereb Blood Flow Metab. 2007 Sep;27(9):1540-52.

P Liang, et al. Sevoflurane activates hippocampal CA3 kainate receptors (Gluk2) to induce hyperactivity during induction and recovery in a mouse model. Br J Anaesth. 2017 Nov 1;119(5):1047-1054.

Barbara Gisabella, et al. Kainate receptor-mediated modulation of hippocampal fast spiking interneurons in a rat model of schizophrenia. PLoS One. 2012;7(3):e32483.

erdoorn TA, Johansen TH, Drejer J, Nielsen EO. Selective block of recombinant glur6 receptors by NS-102, a novel non-NMDA receptor antagonist. Eur J Pharmacol. 1994 Sep 15;269(1):43-9.

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