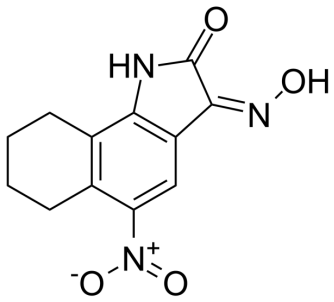
NS-102

Cat. No.:	HY-114427
CAS No.:	136623-01-3
Molecular Formula:	$C_{12}H_{11}N_3O_4$
Molecular Weight:	261.23
Target:	iGluR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 4 mg/mL (15.31 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.8280 mL	19.1402 mL	38.2804 mL
	5 mM	0.7656 mL	3.8280 mL	7.6561 mL
	10 mM	0.3828 mL	1.9140 mL	3.8280 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

NS-102 is a selective kainate (GluK2) receptor antagonist. NS-102 is a potent GluR6/7 receptor antagonist[1][2][3].

In Vitro

Combination of NS-102 (10 μM) and GYKI 52466 (30 μM) preventes full loss of compound action potentials (CAPs) during oxygen and glucose deprivation (OGD) and increases CAP area recovery[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

NS-102 (20, 40 or 80 μmol/litre ; in the hippocampal CA3 region) significantly reduces Sevoflurane-induced hyperactivities[1].

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REFERENCES

[1]. 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.

[2]. 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.

[3]. 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.

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