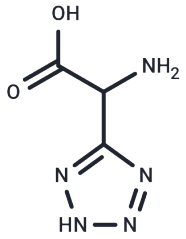
Data Sheet (Cat.No.T16801)

TargetMol

(RS)-(Tetrazol-5-yl)glycine

Chemical Properties



CAS No. : 138199-51-6

Formula: C3H5N5O2

Molecular Weight: 143.1

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	(RS)-(Tetrazol-5-yl)glycine is a potent and selective N-methyl-D-aspartate (NMDA) receptor agonist that can induce seizure models and Fos expression in mice. Its EC50 values for GluN1/GluN2D and GluN1/GluN2A are 99 nM and 1.7 μM, respectively.
Targets(IC50)	NMDAR,iGluR
In vitro	(RS)-(Tetrazol-5-yl)glycine does not significantly inhibit the binding of D,L-alpha-[5-methyl-3H] amino-3-hydroxy-5-methylisoxazole-4-propionic acid (AMPA), [3H]kainate, or [3H]glycine (IC50s>30 μM). It displaces NMDA receptor binding to rat brain membranes using [3H]CGS19755 (IC50=98 nM) and [3H]glutamate (IC50=36 nM) as ligands [1].
In vivo	(RS)-(Tetrazol-5-yl)glycine is a potent convulsant in neonatal rats (ED50=0.071 mg/kg; i.p.) and induces seizure responses and Fos in NR1+/+ and NR1-/- mice (1.25, 1.5 mg/kg; IP) [1][3].

Solubility Information

Solubility	DMSO: < 1.43 mg/mL (10 mM, insoluble or slightly soluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.9881 mL	34.9406 mL	69.8812 mL
5 mM	1.3976 mL	6.9881 mL	13.9762 mL
10 mM	0.6988 mL	3.4941 mL	6.9881 mL
50 mM	0.1398 mL	0.6988 mL	1.3976 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

Schoepp DD, et al. D,L-(tetrazol-5-yl) glycine: a novel and highly potent NMDA receptor agonist. Eur J Pharmacol. 1991 Oct 15;203(2):237-43.

Vance KM, et al. Ligand-specific deactivation time course of GluN1/GluN2D NMDA receptors. Nat Commun. 2011;2:294.

Duncan GE, et al. Seizure responses and induction of Fos by the NMDA agonist (tetrazol-5-yl)glycine in a geneticmodel of NMDA receptor hypofunction. Brain Res. 2008 Jul 24;1221:41-8.