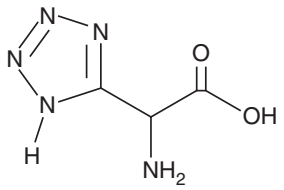
PRODUCT INFORMATION

Tetrazolyl Glycine

Item No. 28408

CAS Registry No.:	138199-51-6
Formal Name:	α-amino-2H-tetrazole-5-acetic acid
Synonyms:	Tet-Glycine, LY285265, DL-(Tetrazol-5-yl)Glycine
MF:	$C_3H_5N_5O_2$
FW:	143.1
Purity:	≥95%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Tetrazolyl glycine is supplied as a solid. A stock solution may be made by dissolving the tetrazolyl glycine in the solvent of choice, which should be purged with an inert gas. Tetrazolyl glycine is soluble in organic solvents such as DMSO. The solubility of tetrazolyl glycine in DMSO is approximately 0.25 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of tetrazolyl glycine can be prepared by directly dissolving the solid in aqueous buffers. The solubility of tetrazolyl glycine in PBS, pH 7.2, is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Tetrazolyl glycine is an NMDA receptor agonist.[1] It binds to rat brain membranes with IC_{50} values of 98 and 36 nM for [^{3}H]CGS19755 and [^{3}H]glutamate, respectively, in radioligand binding assays. It induces depolarization in rat cortical slices, an effect that is blocked by the NMDA receptor antagonist LY233053. It induces degeneration of GABAergic and cholinergic neurons in the striatum of adult rats and the formation of excitotoxic lesions and seizures in neonatal rats (ED_{50} = 0.071 mg/kg).[1,2] Intrastriatal injection of tetrazolyl glycine (5 µM) increases COX-2 expression in striatal neurons and the vasculature near the striatal injection site in a mouse model of excitotoxicity-induced neuronal injury.[3]

References

1. Schoepp, D.D., Smith, C.L., Lodge, D., *et al.* D,L-(Tetrazol-5-yl) glycine: A novel and highly potent NMDA receptor agonist. *Eur. J. Pharmacol.* **203(2)**, 237-243 (1991).
2. Schoepp, D.D., Lunn, W.H.W., Salhoff, C.R., *et al.* The NMDA receptor agonist DL-(tetrazol-5-yl)glycine is a highly potent excitotoxin. *Eur. J. Pharmacol.* **270(1)**, 67-72 (1994).
3. An, Y., Belevych, N., Wang, Y., *et al.* Neuronal and nonneuronal COX-2 expression confers neurotoxic and neuroprotective phenotypes in response to excitotoxin challenge. *J. Neurosci. Res.* **92(4)**, 486-495 (2014).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/19/2022

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM