

gamma-DGG acetate(6729-55-1 free base)

Chemical Properties

CAS No. : 2935387-13-4

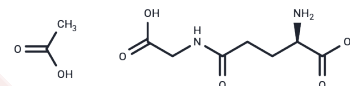
Formula: C₉H₁₆N₂O₇

Molecular Weight: 264.23

Keep away from moisture

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	gamma-DGG acetate(6729-55-1 free base) (γ-D-Glutamylglycine) is a competitive blocker of AMPA receptor.
Targets(IC50)	GluR,iGluR
In vitro	gamma-DGG (γ-DGG) acetate is the most effective antagonist of the excitatory postsynaptic potentials (e.p.s.p.s). Its action is reversible and not associated with any change in the passive membrane properties of the granule cells or in the apparent reversal potential of the e.p.s.p. gamma-DGG blocks less at higher glutamate concentration. gamma-DGG (200-400 μM) in the bath decreases the miniature EPSC (mEPSC) amplitude by 26±2% (n=5 synapses) and shifts both the mEPSC amplitude distribution and the cumulative probability curve to the left[1]. The quantal analysis displays that the reduction in the e.p.s.p. paralleled the reduction in quantal size rather than quantal content, confirming a post-synaptic site of the action of gamma-DGG[2].

Solubility Information

Solubility	H ₂ O: 50 mg/mL (189.23 mM),Sonication is recommended. DMSO: Slightly soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.7846 mL	18.9229 mL	37.8458 mL
5 mM	0.7569 mL	3.7846 mL	7.5692 mL
10 mM	0.3785 mL	1.8923 mL	3.7846 mL
50 mM	0.0757 mL	0.3785 mL	0.7569 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

Wu XS, et al. The origin of quantal size variation: vesicular glutamate concentration plays a significant role. *J Neurosci.* 2007 Mar 14;27(11):3046-56.

Crunelli V, et al. Blockade of amino acid-induced depolarizations and inhibition of excitatory post-synaptic potentials in rat dentate gyrus. *J Physiol.* 1983 Aug;341:627-40.

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