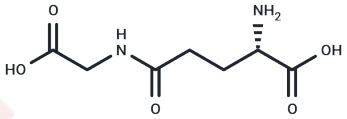
Data Sheet (Cat.No.T39359)

TargetMol

γ-Glu-Gly

Chemical Properties



CAS No. :	1948-29-4
Formula:	C7H12N2O5
Molecular Weight:	204.18
Storage:	Store at low temperature,Keep away from moisture 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	γ-Glu-Gly (gamma-Glutamylglycine), a γ-glutamyl dipeptide, is a human lipid metabolite with a structure resembling that of GABA (γ-aminobutyric acid). It functions as an antagonist of excitatory amino acids.
Targets(IC50)	Amino Acids and Derivatives,Endogenous Metabolite
In vitro	γ-Glu-Gly serves as a crucial element influencing the flavor profile of aged cheese. Within S. cerevisiae, γ-Glutamyltransferase (GGT) generates two γ-glutamyl peptides, namely γ-Glu-Glu and γ-Glu-Gly.[1]
In vivo	Gamma-glutamylglycine (200 ng; seizure activity was elicited electrically from the inferior colliculus) significantly elevated the threshold current for seizure production.[4]

Solubility Information

Solubility	H2O: 27.5 mg/mL (134.69 mM),Sonication is recommended. DMSO: < 1 mg/mL (insoluble or slightly soluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.8976 mL	24.4882 mL	48.9764 mL
5 mM	0.9795 mL	4.8976 mL	9.7953 mL
10 mM	0.4898 mL	2.4488 mL	4.8976 mL
50 mM	0.098 mL	0.4898 mL	0.9795 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

Kit-Yi Leung, et al. Regulation of glycine metabolism by the glycine cleavage system and conjugation pathway in mouse models of non-ketotic hyperglycinemia. J Inherit Metab Dis. 2020 Nov;43(6):1186-1198.
Sonu Yadav, et al. Metabolomics shows the Australian dingo has a unique plasma profile. Sci Rep. 2021 Mar 4;11 (1):5245.
Olga A Sofyanovich, et al. Multiple pathways for the formation of the γ-glutamyl peptides γ-glutamyl-valine and γ- glutamyl-valyl-glycine in Saccharomyces cerevisiae. PLoS One. 2019 May 9;14(5):e0216622.
McCown TJ, et al. Amino acid influences on seizures elicited within the inferior colliculus. J Pharmacol Exp Ther. 1987;243(2):603-608.
Nicoletti F, et al. The activation of inositol phospholipid metabolism as a signal-transducing system for excitatory amino acids in primary cultures of cerebellar granule cells. J Neurosci. 1986;6(7):1905-1911.