Data Sheet (Cat.No.T20262)

TargetMol

Arginine glutamate

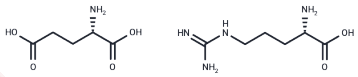
Chemical Properties

CAS No. : 4320-30-3

Formula: C11H23N5O6

Molecular Weight: 321.33

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	Arginine glutamate serves as a nitrogen donor in the synthesis of nitric oxide. Arginine glutamate promotes gastric emptying in rats and can be used in research on functional dyspepsia.
Targets(IC50)	Endogenous Metabolite,NO Synthase
In vivo	Methods: Rats were orally administered 10-30 mg/kg arginine glutamate, and 3-30 mg/kg of the compound was given by gavage. Gastric emptying and gastric adaptive relaxation were measured respectively. Results: Arginine glutamate promoted gastric emptying in rats in a dose-dependent manner, and this effect depended on vagus nerve activation. Meanwhile, it also enhanced gastric adaptive relaxation in rats in a dose-dependent manner.

Solubility Information

Solubility	DMSO: Soluble, H2O: 80 mg/mL (248.97 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1121 mL	15.5603 mL	31.1207 mL
5 mM	0.6224 mL	3.1121 mL	6.2241 mL
10 mM	0.3112 mL	1.556 mL	3.1121 mL
50 mM	0.0622 mL	0.3112 mL	0.6224 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

Ikumi Ishibashi-Shiraishi, et al. L-Arginine L-Glutamate Enhances Gastric Motor Function in Rats and Dogs and Improves Delayed Gastric Emptying in Dogs. J Pharmacol Exp Ther. 2016 Nov;359(2):238-246.

Kheddo P, Bramham JE, Dearman RJ, Uddin S, van der Walle CF, Golovanov AP. Investigating Liquid-Liquid Phase Separation of a Monoclonal Antibody Using Solution-State NMR Spectroscopy: Effect of Arg·Glu and Arg·HCl. Mol Pharm. 2017 Aug 7;14(8):2852-2860. doi: 10.1021/acs.molpharmaceut.7b00418. Epub 2017 Jun 28. PubMed PMID: 28614662.

Yu A, Alberstein R, Thomas A, Zimmet A, Grey R, Mayer ML, Lau AY. Molecular lock regulates binding of glycine to a primitive NMDA receptor. Proc Natl Acad Sci U S A. 2016 Nov 1;113(44):E6786-E6795. Epub 2016 Oct 17. PubMed PMID: 27791085; PubMed Central PMCID: PMC5098608.

Kheddo P, Cliff MJ, Uddin S, van der Walle CF, Golovanov AP. Characterizing monoclonal antibody formulations in arginine glutamate solutions using (1)H NMR spectroscopy. MAbs. 2016 Oct;8(7):1245-1258. Epub 2016 Aug 11. PubMed PMID: 27589351; PubMed Central PMCID: PMC5058632.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481