

N-Palmitoyl-L-glutamine

Chemical Properties

CAS No. : 58725-34-1

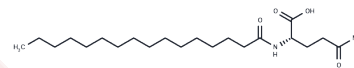
Formula: C₂₁H₄₀N₂O₄

Molecular Weight: 384.55

Storage: Keep away from moisture, Keep away from direct sunlight

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	N-Palmitoyl-L-glutamine is a glutamine derivative, with palmitoyl and glutamine as the primary structures, with low activity (38.8 U/mg) as a substrate for the enzyme PmAcy, which is increased by activation at high temperatures and by addition of metal ions. PmAcy (aminoacylase from <i>Paraburkholderia monticola</i> DSM 100849) is an aminoacylase that synthesizes n -acyl amino acids.
Targets(IC50)	Others,Amino Acids and Derivatives
In vitro	Due to its molecular architecture, N-Palmitoyl-L-glutamine is an amphiphilic compound with a notable capacity to form micelles[1].

Solubility Information

Solubility	DMSO: 50 mg/mL (130.02 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	5% DMSO+40% PEG300+5% Tween80+50% Saline: 5 mg/mL (13 mM),Suspension. Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6004 mL	13.0022 mL	26.0044 mL
5 mM	0.5201 mL	2.6004 mL	5.2009 mL
10 mM	0.260 mL	1.3002 mL	2.6004 mL
50 mM	0.052 mL	0.260 mL	0.5201 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

Massimo Maffei, et al. Effects of feeding *Spodoptera littoralis* on lima bean leaves. I. Membrane potentials, intracellular calcium variations, oral secretions, and regurgitate components. *Plant Physiol.* 2004 Apr;134(4):1752-62.

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