

Product Data Sheet

L-Alanyl-L-glutamine

Cat. No.: HY-W014102 CAS No.: 39537-23-0 Molecular Formula: C₈H₁₅N₃O₄ Molecular Weight: 217.22

Target: **Endogenous Metabolite** Pathway: Metabolic Enzyme/Protease

4°C, protect from light * In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

SOLVENT & SOLUBILITY

Storage:

H₂O: 50 mg/mL (230.18 mM; Need ultrasonic) In Vitro

DMSO: < 1 mg/mL (insoluble or slightly soluble)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	4.6036 mL	23.0181 mL	46.0363 mL
	5 mM	0.9207 mL	4.6036 mL	9.2073 mL
	10 mM	0.4604 mL	2.3018 mL	4.6036 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo 1. Add each solvent one by one: PBS

Solubility: 100 mg/mL (460.36 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description L-Alanyl-L-glutamine, a glutamine dipeptide, is benefit for the antioxidant system, attenuating inflammation, and may modulate the heat shock protein (HSP) response in catabolic situations^[1].

In Vitro L-Alanyl-L-glutamine (2 mM; 24 hours) partially or fully attenuates chronic insulin secretion, and IR-β and COX IV levels which are decreased when β -cells were exposed to macrophages following stimulation in vitro (IMMs)^[1].

> L-Alanyl-L-glutamine -dependent β-cell protection mediated by coordinated effects on the glutamine-GSH axis, and the HSP pathway, maintenance of mitochondrial metabolism and stimulus-secretion coupling essential for insulin release^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

1]. Cruzat VF,et al. Alanyl-gluta	amine improves pancreatic β-	cell function following ex vivo i	nflammatory challenge. J Endocrino	ol. 2015 Mar;224(3):261-71.	
	Caution: Product has no	t been fully validated for m	nedical applications. For researc	h use only.	
	Tel: 609-228-6898	Fax: 609-228-5909	E-mail: tech@MedChemEx	xpress.com	
	Address: 1	Deer Park Dr, Suite Q, Monm	nouth Junction, NJ 08852, USA		

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