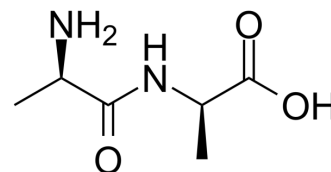


D-Ala-D-Ala

Cat. No.:	HY-W015450		
CAS No.:	923-16-0		
Molecular Formula:	C ₆ H ₁₂ N ₂ O ₃		
Molecular Weight:	160.17		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (624.34 mM; Need ultrasonic)
DMSO : 2 mg/mL (12.49 mM; ultrasonic and adjust pH to 5 with HCl)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		6.2434 mL	31.2168 mL	62.4337 mL
	5 mM		1.2487 mL	6.2434 mL	12.4867 mL
	10 mM		0.6243 mL	3.1217 mL	6.2434 mL

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

BIOLOGICAL ACTIVITY

Description

D-Ala-D-Ala constitutes the terminus of the peptide part of the peptidoglycan monomer unit and is involved in the transpeptidation reaction as the substrate. D-Ala-D-Ala is catalyzed by D-Alanine-D-Alanine ligase. D-Ala-D-Ala is a bacterial endogenous metabolite^{[1][2]}.

IC₅₀ & Target

Microbial Metabolite

REFERENCES

[1]. Kitamura Y, et al. Structure of D-alanine-D-alanine ligase from *Thermus thermophilus* HB8: cumulative conformational change and enzyme-ligand interactions. *Acta Crystallogr D Biol Crystallogr*. 2009 Oct;65(Pt 10):1098-106.

[2]. Tytgat I, et al. DD-ligases as a potential target for antibiotics: past, present and future. *Curr Med Chem*. 2009;16(20):2566-80.

Caution: Product has not been fully validated for medical applications. For research use only.

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