# PRODUCT INFORMATION



## D-Ala-D-Ala

Item No. 39648

CAS Registry No.: 923-16-0

Formal Name: D-alanyl-D-alanine

Synonym: DADA MF:  $C_6H_{12}N_2O_3$ FW: 160.2 **Purity:** ≥98% Supplied as: A solid -20°C Storage: Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### **Laboratory Procedures**

D-Ala-D-Ala is supplied as a solid. A stock solution may be made by dissolving the D-Ala-D-Ala in the solvent of choice, which should be purged with an inert gas. D-Ala-D-Ala is slightly soluble in acetonitrile. It is slightly soluble in water.

## Description

D-Ala-D-Ala is the terminal dipeptide moiety of peptidoglycan in bacterial cell walls and a target of certain antibacterial agents. Replacement of D-Ala-D-Ala with D-Ala-D-lactate by the combined activity of the enterococcal gene products VanA, VanH, and VanX reduces the affinity of the antibiotic vancomycin (Item No. 15327) for the peptidoglycan and is responsible for vancomycin resistance.

### Reference

1. Marshall, C.G., Broadhead, G.K., Leskiw, B.K., et al. D-Ala-D-Ala ligases from glycopeptide antibioticproducing organisms are highly homologous to the enterococcal vancomycin-resistance ligases VanA and VanB. Proc. Natl. Acad. Sci. USA. 94(12), 6480-6483 (1997).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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