

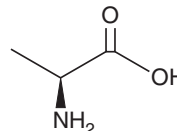
PRODUCT INFORMATION



L-Alanine

Item No. 29757

CAS Registry No.: 56-41-7
Synonyms: 2-Aminopropanoic Acid, α -Alanine, L-(+)-Alanine, (S)-Alanine, (2S)-2-Azaniumylpropanoate, NSC 206315
MF: C₃H₇NO₂
FW: 89.1
Purity: $\geq 95\%$
Supplied as: A solid
Storage: -20°C
Stability: ≥ 4 years



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

Laboratory Procedures

L-alanine is supplied as a solid. Aqueous solutions of L-alanine can be prepared by directly dissolving the solid in aqueous buffers. The solubility of L-alanine in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

L-Alanine is a non-essential amino acid.¹ It is produced by direct β -decarboxylation of L-aspartate by L-aspartate β -decarboxylase or transamination of pyruvate in the glucose-alanine cycle and is a precursor for gluconeogenesis.² Dysregulation of L-alanine metabolism is associated with various disease states, including diabetes, metabolic syndrome, ketotic hypoglycemia, and acquired acute lactic acidosis.

References

1. Graber, R., Kasper, P., Malashkevich, V.N., *et al.* Conversion of aspartate aminotransferase into an L-aspartate β -decarboxylase by a triple active-site mutation. *J. Biol. Chem.* **274**(44), 31203-31208 (1999).
2. Felig, P. Progress in endocrinology and metabolism: The glucose-alanine cycle. *Metab.* **22**(2), 179-207 (1973).

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

SAFETY DATA
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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