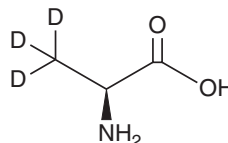


PRODUCT INFORMATION



L-Alanine-d₃ Item No. 34833

CAS Registry No.: 63546-27-0
Formal Name: L-alanine-3,3,3-d₃
Synonyms: 2-Aminopropanoic Acid-d₃, α-Alanine-d₃,
L-(+)-Alanine-d₃, (S)-Alanine-d₃,
(2S)-2-Azaniumylpropanoate-d₃
MF: C₃H₄D₃NO₂
FW: 92.1
Chemical Purity: ≥95% (L-Alanine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
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-d₃ is intended for use as an internal standard for the quantification of L-alanine (Item No. 29757) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

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. *Metabolis.* **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.

WARRANTY AND LIMITATION OF REMEDY

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