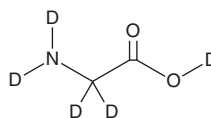


PRODUCT INFORMATION



Glycine-d₅ Item No. 34825

CAS Registry No.: 4896-77-9
Formal Name: glycine-N,N,1,2,2-d₅
Synonym: Aminoacetic Acid-d₅
MF: C₂D₅NO₂
FW: 80.1
Chemical Purity: ≥98% (Glycine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₅); ≤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

Glycine-d₅ is intended for use as an internal standard for the quantification of glycine 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).

Glycine-d₅ is supplied as a solid. A stock solution may be made by dissolving the glycine-d₅ in the solvent of choice, which should be purged with an inert gas. Glycine-d₅ is soluble in the organic solvent ethanol at a concentration of approximately 1 mg/ml.

Description

Glycine is a conditionally essential amino acid and the major inhibitory neurotransmitter in the spinal cord and brainstem.^{1,2} It is synthesized from threonine, choline, hydroxyproline, and serine via interorgan metabolism between the liver and kidneys.² It can also be derived from dietary sources. Glycine is essential to protein synthesis and the conjugation of bile acids and is a precursor in glutathione, purine, heme, and serine synthesis.

References

1. Zafra, F., Aragón, C., Olivares, L., *et al.* Glycine transporters are differentially expressed among CNS cells. *J. Neurosci.* **15(5 Pt 2)**, 3952-3969 (1995).
2. Wang, W., Wu, Z., Dai, Z., *et al.* Glycine metabolism in animals and humans: Implications for nutrition and health. *Amino Acids* **45(3)**, 463-477 (2013).

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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