

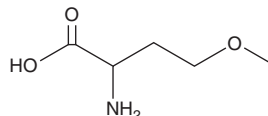
PRODUCT INFORMATION



Methoxine

Item No. 43065

CAS Registry No.: 4385-91-5
Formal Name: O-methyl-homoserine
Synonyms: 2-Amino-4-methoxybutanoic Acid, NSC 9325
MF: $C_5H_{11}NO_3$
FW: 133.1
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

Methoxine is supplied as a solid. Aqueous solutions of methoxine can be prepared by directly dissolving the solid in aqueous buffers. Methoxine is soluble (≥ 10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Methoxine is a non-natural amino acid.¹ It increases the proliferation of, and glucose consumption in, primary bovine rumen bacteria when used at a concentration of 8 mg/ml. Methoxine (40 g in the diet) increases serum and rumen lipid levels in cattle.² It has been used as an oxidation-resistant replacement for methionine in the synthesis of radiolabeled peptides.³

References

1. Gil, L.A., Shirley, R.L., and Moore, J.E. Effect of methionine hydroxy analog on growth amino acid content, and catabolic products of glucolytic rumen bacteria in vitro. *J. Dairy Sci.* **56(6)**, 757-762 (1973).
2. Patton, R.A., McCarthy, R.D., and Griel, L.C., Jr. Observations on rumen fluid, blood serum, and milk lipids of cows fed methionine hydroxy analog. *J. Dairy Sci.* **53(6)**, 776-780 (1970).
3. Grob, N.M., Behe, M., von Guggenberg, E., et al. Methoxinine - an alternative stable amino acid substitute for oxidation-sensitive methionine in radiolabelled peptide conjugates. *J. Pept. Sci.* **23(1)**, 38-44 (2017).

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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