



Product Information

L-Methionine

Product Name: L-Methionine

Product Code: MB0346

Product Description

Molecular Formula: C₅H₁₁NO₂S

Molecular Weight: 149.2

CAS Number: 63-68-3

pK_A: 2.28, 9.21

Melting Point: 280 - 282 °C

Rotation: +23.40 (50 mg/ml, 6 M HCl, 20 °C)

Methionine is one of the common sulfur-containing amino acids. The biosynthesis of methionine initially occurs by the condensation of homoserine and succinyl-CoA via the action of homoserine acyltransferase. Subsequently, cystathionine γ-synthase displaces the succinate group with cysteine to give cystathionine. Cystathionine α-lyase then hydrolyzes cystathionine to produce homocysteine. Transfer of a methyl group from N⁵-methyltetrahydrofolate to the homocysteine forms methionine.

Methionine is a common methyl-group donor to various substrates, such as creatine, epinephrine, ergosterol, and choline. Methionine is a relatively hydrophobic amino acid residue, and as such is frequently buried in protein three-dimensional structure, making modification of methionine residues difficult.

A review of the oxidation of methionine as it relates to oxidation of β-amyloid peptides has been published.

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in 1 M HCl (50 mg/ml), yielding a clear, colorless solution. This product is also soluble in water (50 mg/ml), with heat as needed.

Storage/Stability

Stock solutions are stable for approximately five years at 2 - 8 ° C.