

Product Data Sheet

Product Name: L-Methionine-d3

Cat. No.: GC49368

Chemical Properties

Cas. No. 13010-53-2

SMILES OC([C@@H](N)CCSC([2H])([2H])[2H])=O

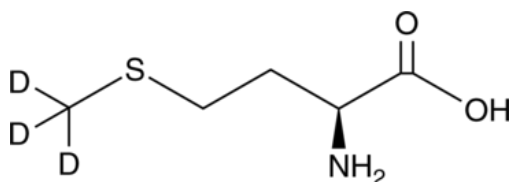
Formula C5H8D3NO2S M.Wt 152.2

Solubility DMF: insol,DMSO: insol,Ethanol: Storage -20°C
 insol,PBS (pH 7.2): 10 mg/ml

General For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT , or Condition blue ice upon request.

Structure



Background

L-Methionine-d₃ is intended for use as an internal standard for the quantification of L-methionine by GC- or LC-MS. L-Methionine is an essential amino acid.^{1,2} It is catabolized by methionine adenosyltransferase 2A (MAT2A), yielding the universal methyl donor S-² L-methionine has roles in purine and pyrimidine synthesis, polyamine synthesis, and glutathione production, as well as in various metabolic diseases and aging. Dietary methionine restriction (MR) prevents accelerated aging in a mouse model of progeria and increases the lifespan of yeast, *Drosophila*, *C. elegans*, mice, and rats.^{1,2} MR also improves insulin sensitivity and reduces adiposity in mice, as well as inhibits the growth and proliferation of several cancer cell lines.

1.Wanders, D., Hobson, K., and Ji, X.Methionine restriction and cancer biologyNutrients12(3)684(2020) 2.Sanderson, S.M., Gao, X., Dai, Z., et al.Methionine metabolism in health and cancer: A nexus of diet and precision medicineNat. Rev. Cancer19(11)625-637(2019)

Caution: Product has not been fully validated for medical applications. For research use only.

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