

Product Data Sheet

Product Name: Cystathionine-d₄

Cat. No.: GC49886

Chemical Properties

Cas. No.

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

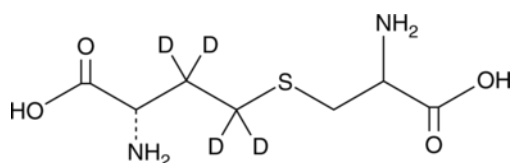
Formula C₇H₁₀D₄N₂O₄S M.Wt 226.3

Solubility Water: slightly Storage -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the 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

Cystathionine-d₄ is intended for use as an internal standard for the quantification of cystathionine by GC- or LC-MS. Cystathionine is an intermediate in the biosynthesis of cysteine that is composed of homocysteine and serine.^{1,2} It has four potential isomers, L-cystathionine, D-cystathionine, L-allo-cystathionine, and D-allo-cystathionine.³ Dietary administration of L-allo-cystathionine (0.74%) or the naturally occurring L-cystathionine (0.74%) substitute for cystine and increase the body weight of growing rats.

1. Steegborn, C., Clausen, T., Sondermann, P., et al. Kinetics and inhibition of recombinant human cystathionine γ-lyase. Toward the rational control of transsulfuration. *J. Biol. Chem.* 274(18):12675-12684 (1999) 2. Finkelstein, J.D. The metabolism of homocysteine: Pathways and regulation. *Eur. J. Pediatr.* 157(Suppl 2):S40-S44 (1998) 3. Anslow, W.P., Jr., Simmonds, S., and Du Vigneaud, V. The synthesis of the isomers of cystathionine and a study of their availability in sulfur metabolism. *J. Biol. Chem.* 166(1):35-45 (1946)

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA