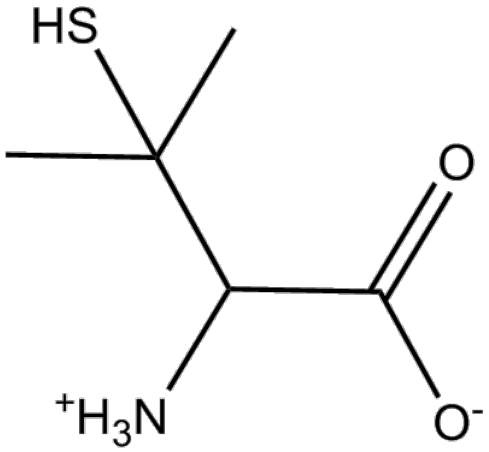
Product Data Sheet

Product Name: H-D-Pen-OH
Cat. No.: GA10659

Chemical Properties

Cas. No.	52-67-5		
Chemical Name	(2S)-2-amino-3-methyl-3-sulfanylbutanoic acid		
SMILES	CC(C)(C(C(=O)[O-])[NH3+])S		
Formula	$C_5H_{11}NO_2S$	M.Wt	149.21
Solubility	DMF: 30 mg/ml,DMSO: 30 mg/ml,DMSO:PBS (pH 7.2) (1:7): 0.12 mg/ml,Ethanol: 5 mg/ml	Storage	Store at 2-8°C
General tips	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 Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

Penicillamine (D-(-)-Penicillamine) is the most characteristic degradation product of the penicillin antibiotics. It is used as an antirheumatic and as a chelating agent in Wilson's disease.Target: OthersPenicillamine is used as an antirheumatic and as a chelating agent in Wilson's disease and is

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a chelating agent recommended for the removal of excess copper in patients with Wilson's disease. From in vitro studies which indicate that one atom of copper combines with two molecules of penicillamine. Penicillamine also reduces excess cystine excretion in cystinuria. The mechanism of action of penicillamine in rheumatoid arthritis is unknown although it appears to suppress disease activity. Unlike cytotoxic immunosuppressants, Penicillamine markedly lowers IgM rheumatoid factor but produces no significant depression in absolute levels of serum immunoglobulins. Also unlike cytotoxic immunosuppressants which act on both, Penicillamine in vitro depresses T-cell activity but not B-cell activity [1-3].

References:

[1]. Peisach, J. and W.E. Blumberg, A mechanism for the action of penicillamine in the treatment of Wilson's disease. Mol Pharmacol, 1969. 5(2): p. 200-9.
[2]. Jaffe, I.A., K. Altman, and P. Merryman, The Antipyridoxine Effect of Penicillamine in Man. J Clin Invest, 1964. 43: p. 1869-73.
[3]. Camp, A.V., Penicillamine in the treatment of rheumatoid arthritis. Proc R Soc Med, 1977. 70(2): p. 67-9.

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