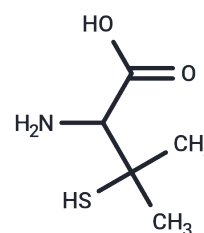


DL-Penicillamine

Chemical Properties

CAS No. :	52-66-4
Formula:	C ₅ H ₁₁ NO ₂ S
Molecular Weight:	149.21
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	DL-Penicillamine (3-Sulfanylvaline) is a chelating agent recommended for the removal of excess copper in patients with Wilson's disease. DL-Penicillamine is only found in individuals that have used or taken this drug. It 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. From in vitro studies which indicate that one atom of copper combines with two molecules of DL-penicillamine. DL-Penicillamine also reduces excess cystine excretion in cystinuria. This is done, at least in part, by disulfide interchange between DL-penicillamine and cystine, resulting in the formation of penicillamine-cysteine disulfide, a substance that is much more soluble than cysteine and is excreted readily. DL-Penicillamine interferes with the formation of cross-links between tropocollagen molecules and cleaves them when newly formed. The mechanism of action of DL-penicillamine in rheumatoid arthritis is unknown although it appears to suppress disease activity. Unlike cytotoxic immunosuppressants, DL-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, DL-penicillamine in vitro depresses T-cell activity but not B-cell activity.
Targets(IC50)	Antibiotic

Solubility Information

Solubility	H ₂ O: 5 mM, DMSO: Insoluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.702 mL	33.5098 mL	67.0196 mL
5 mM	1.3404 mL	6.702 mL	13.4039 mL
10 mM	0.6702 mL	3.351 mL	6.702 mL
50 mM	0.134 mL	0.6702 mL	1.3404 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Brewer GJ. Expert Opin PharmacOthers. 2006, 7(3):317-24

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