

Product Datasheet

D-(-)-Penicillamine (orb1224795)

Catalog Number	orb1224795
Category	Small Molecules
Description	<p>(2S)-2-Amino-3-methyl-3-sulfanylbutanoic acid 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: Others (2S)-2-Amino-3-methyl-3-sulfanylbutanoic acid (Cuprimine, Depen) is used as an antirheumatic and as a chelating agent in Wilson's disease and is 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. \n(In Vitro):Penicillamine (D-(-)-Penicillamine) (5 mg; 7 d; CD4+ and CD+ splenocytes) promotes cellular immune responses.(In Vivo):Penicillamine (D-(-)-Penicillamine) (200 mg/kg; i.g.; daily, for 3, 10 and 14 d; tx mice and DL mice) increases serum free copper concentration.Penicillamine (200 mg/kg; i.g.; daily, for 3, 10 and 14 d; tx mice and DL mice) increases ATP7A and CTR1 mRNA expression in the brain of tx mice.Penicillamine (200 mg/kg; i.g.; daily, for 3, 10 and 14 d; tx mice and DL mice) induces oxidative-stress in the central nervous system.Penicillamine (0.1-250 mg/kg; i.p.; once, for 90 min; male NMRI mice) has binaural phase effect on seizure.Penicillamine (5 mg/kg; i.v.; daily, for 8 weeks; male BN rats) prevents the onset of autoimmunity at a low dose.</p>
Target	Copper
Purity	>98% (HPLC)
MW	149.21
Target Areas	Copper
Solubility (25°C)	Water: 30 mg/mL (201.05 mM)
CAS Number	52-67-5

Biorbyt Ltd.

7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com
Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713
United States

Email: info@biorbyt.com, support@biorbyt.com
Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

Formula	$C_5H_{11}NO_2S$
SMILES	<chem>CC(C)([C@H](C(=O)O)N)S</chem>
Chemical Name	(2S)-2-amino-3-methyl-3-sulfanylbutanoic acid
Storage	Storage temperature: -20°C. Stability: ≥ 2 years
Note	For research use only
Expiration Date	12 months from date of receipt.

Biorbyt Ltd.

7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com
Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713
United States

Email: info@biorbyt.com, support@biorbyt.com
Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)