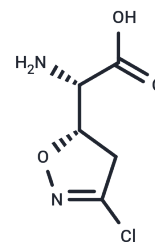


Acivicin

Chemical Properties

CAS No. :	42228-92-2
Formula:	C ₅ H ₇ ClN ₂ O ₃
Molecular Weight:	178.57
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Acivicin (AT-125), a chlorinated amino acid antibiotic produced by <i>Streptomyces porcineus</i> , is a γ -glutamyl transpeptidase (GGT) inhibitor that crosses the blood-brain barrier, exhibits anticancer and antiparasitic activity, and is used in the study of visceral leishmaniasis.
Targets(IC50)	Antibiotic,Parasite,Transferase
In vivo	In male pigmented Long-Evans rats weighing between 250 g and 300 g exposed to toluene, Acivicin (5 mg/kg; intraperitoneal injection; twice weekly) was able to reduce urinary γ -GT by 70-78%[3].

Solubility Information

Solubility	H ₂ O: 4 mg/mL (22.4 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.600 mL	28.0002 mL	56.0004 mL
5 mM	1.120 mL	5.600 mL	11.2001 mL
10 mM	0.560 mL	2.800 mL	5.600 mL
50 mM	0.112 mL	0.560 mL	1.120 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Kreuzer J, et al. Target discovery of acivicin in cancer cells elucidates its mechanism of growth inhibition†Electronic supplementary information (ESI) available: Synthesis, cloning, protein expression, purification and biochemical assays. Chem Sci. 2014 Dec 1;6(1):237-245. Epub 2014 Sep 26.

Chikhale EG, et al. Carrier-mediated transport of the antitumor agent acivicin across the blood-brain barrier. Biochem Pharmacol. 1995 Mar 30;49(7):941-5.

Delphine Waniusiow, et al. Toluene-induced hearing loss in acivicin-treated rats. Neurotoxicol Teratol. May-Jun 2008;30(3):154-60.

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