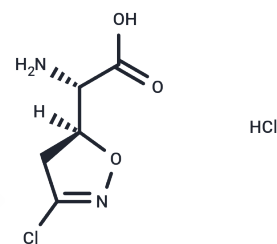


## Acivicin hydrochloride

### Chemical Properties

CAS No. :	161922-40-3
Formula:	C <sub>5</sub> H <sub>8</sub> Cl <sub>2</sub> N <sub>2</sub> O <sub>3</sub>
Molecular Weight:	215.04
Storage:	Store under nitrogen 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 hydrochloride is the hydrochloride form of Acivicin (AT125, U42126). Acivicin, a natural product from <i>Streptomyces sviveus</i> ( <i>Streptomyces</i> ), is a glutamine analog and a potent inhibitor of $\gamma$ -glutamyltransferase (GGT) and a potent inhibitor of L-Asparagine synthetase and other L-glutamine aminotransferases, and is cytotoxic by blocking nucleotide biosynthesis.
Targets(IC50)	Parasite, Transferase
In vitro	<b>Methods:</b> HepG2 cells were treated with Acivicin hydrochloride (0.1-50 $\mu$ M, 5 days) and cell viability was measured. <b>Results:</b> Its IC50 value in HepG2 cells was 0.7 $\mu$ M. [1]

### Solubility Information

Solubility	DMSO: 80 mg/mL (372.02 mM), Sonication is recommended. ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (15.35 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	4.6503 mL	23.2515 mL	46.503 mL
5 mM	0.9301 mL	4.6503 mL	9.3006 mL
10 mM	0.465 mL	2.3251 mL	4.6503 mL
50 mM	0.093 mL	0.465 mL	0.9301 mL

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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. *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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