



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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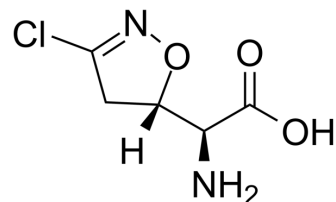
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## Acivicin

<b>Cat. No.:</b>	HY-W016586
<b>CAS No.:</b>	42228-92-2
<b>Molecular Formula:</b>	C <sub>5</sub> H <sub>7</sub> ClN <sub>2</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	178.57
<b>Target:</b>	Parasite
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	4°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 6.67 mg/mL (37.35 mM; Need ultrasonic)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	5.6000 mL	28.0002 mL	56.0004 mL	
5 mM	1.1200 mL	5.6000 mL	11.2001 mL	
10 mM	0.5600 mL	2.8000 mL	5.6000 mL	

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Acivicin (AT-125), a natural product produced by *Streptomyces sviveus* is a  $\gamma$ -glutamyl transpeptidase (GGT) inhibitor. Acivicin can cross the blood-brain barrier and has anti-cancer, anti-parasitic properties<sup>[1][2]</sup>.

#### IC<sub>50</sub> & Target

$\gamma$ -glutamyl transpeptidase<sup>[1]</sup>

#### In Vitro

Acivicin (AT-125; 0.1-50  $\mu$ M; 5 days) has an IC<sub>50</sub> of 0.7  $\mu$ M in human HepG2 cells<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### In Vivo

Acivicin (AT-125; 5 mg/kg; IP; twice weekly) reduces urinary  $\gamma$ -GT by 70-78%<sup>[3]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male pigmented Long-Evans rats weighed between 250 g and 300 g exposed to Toluene <sup>[3]</sup>
Dosage:	5 mg/kg
Administration:	IP; twice weekly (monday and wednesday)

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Result:	Reduced urinary $\gamma$ -GT by 70-78%.
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## REFERENCES

- [1]. 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.
- [2]. 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.
- [3]. 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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**Caution: Product has not been fully validated for medical applications. For research use only.**

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