LKT Laboratories, Inc.

Acivicin

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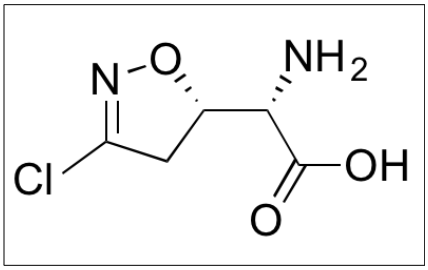
Product Information

Product ID A0934
CAS No. 42228-92-2
Chemical Name (2S)-2-amino-2-[(5S)-3-chloro-4,5-dihydro-1,2-oxazol-5-yl] acetic acid
Synonym α-Amino-3-chloro-4,5-dihydro-5-isoxazoleacetic acid, ACIA



Formula $C_5H_7ClN_2O_3$
Formula Wt. 178.57 g/mol
Melting Point 209-211°C
Purity ≥98%
Solubility Soluble in water to 18mg/mL. Slightly soluble in methanol, ethanol or chloroform.
Store Temp -20°C
Ship Temp Ambient

Bulk quanitites available upon request

Product ID	Size
A0934	5 mg
A0934	10 mg
A0934	25 mg
A0934	100 mg

Description Acivicin is a fermentation product of *Streptomyces*; it is a glutamine analog. Acivicin inhibits γ-glutamyl transferase, CTP synthetase, GMP synthetase, and FGAM synthetase, preventing purine synthesis. Acivicin exhibits anticancer and antifungal activity, although its potential chemotherapeutic benefit is limited by high CNS toxicity. Acivicin inhibits the growth of pancreatic cancer cells and, separately, the growth of *Alternaria*, *Magnaporthe*, and *Botrytis*.

References

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Lyons SD, Sant ME, Christopherson RI. Cytotoxic mechanisms of glutamine antagonists in mouse L1210 leukemia. J Biol Chem. 1990 Jul 5;265(19):11377-81. PMID: 2358467.

Allen L, Meck R, Yunis A. The inhibition of gamma-glutamyl transpeptidase from human pancreatic carcinoma cells by (alpha S,5S)-alpha-amino-3-chloro-4,5-dihydro-5-isoxazoleacetic acid (AT-125; NSC-163501). Res Commun Chem Pathol Pharmacol. 1980 Jan;27(1):175-82. PMID: 6102405.