Product Data Sheet

Product Name: L-4-Oxalysine hydrochloride
Cat. No.: GC32355

Chemical Properties

Cas. No.	118021-35-5		
SMILES	N[C@@H](COCCN)C(O)=O.[H]Cl		
Formula	$C_5H_{13}ClN_2O_3$	M.Wt	184.62
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	L-4-Oxalysine hydrochloride		

Protocol

Animal experiment:

Mice: Sixty mice are randomly and equally divided into 4 groups. One of the groups is given ig saline and the other are given ig 10, 50, 100 mg /kg for 7d. On day l, 7, 14, and 28 respectively after terminating the treatment, 3 mice of each group are killed and the samples are examined under transmission electron microscope[1].

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References:

[1]. Dai ZQ, et al. Effect of L-4-oxalysine on ultrastructures of liver cells in mice. Zhongguo Yao Li Xue Bao. 1991 Jul;12(4):336-40.
[2]. Wang XW, et al. Immunostimulatory action of L-4-oxalysine counteracts immunosuppression induced by alpha-fetoprotein. Eur J Pharmacol. 1998 Jun 12;351(1):105-11.

Background

L-4-Oxalysine hydrochloride is a natural product isolated from the culture media of Streptomyces roseovirdofuscus in China which has shown antitumor activities.

Alpha-fetoprotein (AFP) is expressed in BEL-7404 human hepatoma cells and L-4-Oxalysine suppresses AFP mRNA expression in the cells[1]. L-4-oxalysine functionally antagonizes the a-fetoprotein-induced suppression of the mitogen- and one-way mixed lymphocyte culture-induced proliferation of spleen lymphocytes and interleukin-6 production by these cells in mice bearing the hepatoma-22 tumor[2].

Tbe ultrastructural efects of different doses of L-4-Oxalysine on hepatocytes in mice are most serious at day 1 after stopping treatment. Mice are given ig L-4-oxalysine (I-677) 10, 50, and 100 mg/kg for 7 d. On day 8 the hepatocytes show accumulation of lipid droplets followed by loss of matrices in cytoplasm. The total area of lipid droplets is far less than 25% of mean section of hepatocytes. The injury of mitochondria and RER is only found in the groups of medium and high dose[1]. L-4-oxalysine inhibits the proliferation of some mouse implanted tumors and pulmonary metastasis of mouse Lewis lung carcinoma[2].

[1]. Dai ZQ, et al. Effect of L-4-oxalysine on ultrastructures of liver cells in mice.

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