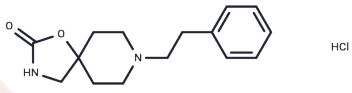
Data Sheet (Cat.No.T0383)

TargetMol

Fenspiride hydrochloride

Chemical Properties



CAS No. : 5053-08-7

Formula: C15H20N2O2·HCl

Molecular Weight: 296.79

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Fenspiride hydrochloride (Decaspiride) , an oxazolidinone spiro compound, is a drug used in the therapy of certain respiratory diseases. It is approved for use in Russia for the therapy of chronic and acute inflammatory diseases of ENT organs and the respiratory tract (like sinusitis, tracheobronchitis, otitis, laryngitis, and rhinopharyngitis), and for maintenance therapy of asthma.
Targets(IC50)	Adrenergic Receptor,Histamine Receptor,PDE
In vitro	Fenspiride induces potentiation of the effects of isoprenaline and sodium nitroprusside with logEC50 of 4.1 and 3.5, respectively, in human isolated bronchi. [1]
In vivo	Fenspiride, an antiinflammatory drug with low anti-cyclooxygenase activity, administered orally at 60-200 mg/kg inhibits neutrophil migration into peritoneal and air pouches cavities as well as exudation into peritoneal cavities induced by endotoxin but not induced by carrageenin in the rat. Fenspiride (200 mg/kg) inhibits the release of tumour necrosis factor by stimulated macrophages in a dose-dependent manner in the rat. [2] Fenspiride (Topically applied) is found to inhibit the development of sclerotic lesions in myringotomized rats, whereas intraperitoneal injections are ineffective. [3] Fenspiride (60 mg/kg) significantly reduces the lipopolysaccharide-induced early rise of tumor necrosis factor concentrations in serum (4.2 ng/mL vs. 2.3 ng/mL) and in the bronchoalveolar lavage fluid (55.7 ng/mL vs. 19.7 ng/mL) of guinea-pigs with endotoxemia. Fenspiride (60 mg/kg) also significantly reduces the lipopolysaccharide-induced primed stimulation of alveolar macrophages, defined as their enhanced release of arachidonic acid metabolites as compared to cells from untreated controls upon stimulation with N-formyl-methionyl-phenylalanine. Fenspiride (60 mg/kg) reduces the increased serum concentrations of extracellular type II phospholipase A2, the intensity of the neutrophilic alveolar invasion and the lethality due to the lipopolysaccharide in guinea-pigs with endotoxemia. [4]

Solubility Information

Solubility	DMSO: 9 mg/mL (30.32 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), H2O: 54 mg/mL (181.95 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3694 mL	16.8469 mL	33.6939 mL
5 mM	0.6739 mL	3.3694 mL	6.7388 mL
10 mM	0.3369 mL	1.6847 mL	3.3694 mL
50 mM	0.0674 mL	0.3369 mL	0.6739 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.

Reference

Cortijo J, et al. Eur J Pharmacol, 1998, 341(1), 79-86.
Cunha FQ, et al. Eur J Pharmacol, 1993, 238(1), 47-52.
Mattsson C, et al. Eur Arch Otorhinolaryngol, 1997, 254(9-10), 425-429.
De Castro CM, et al. Eur J Pharmacol, 1995, 294(2-3), 669-676.