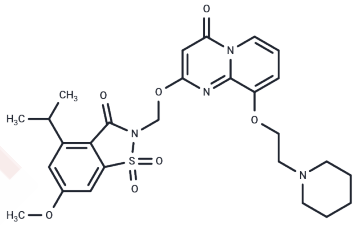
Data Sheet (Cat.No.T21989)

TargetMol

SSR 69071

Chemical Properties



CAS No. :	344930-95-6
Formula:	C27H32N4O7S
Molecular Weight:	556.63
Storage:	Powder: -20°C for 3 years | In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

Biological Description

Description	SSR69071 is a potent, orally active, and selective inhibitor of neutrophil elastase, displaying higher affinity for human elastase (Ki = 0.0168 nM) compared to rat (Ki = 3 nM), mouse (Ki = 1.8 nM), and rabbit (Ki = 58 nM) elastases [2]. It reduces myocardial infarct size following ischemia-reperfusion injury [1] and has potential for treating chronic obstructive pulmonary diseases, asthma, emphysema, cystic fibrosis, and various inflammatory diseases.
Targets(IC50)	Others,Serine Protease
In vitro	SSR69071 is a potent inhibitor of human leukocyte elastase (HLE), with an inhibition constant (K i) of 0.0168±0.0014 nM and an inactivation process constant (k on) of 0.183 ±0.013 10 6 /mol sr [2]. It is also a competitive and slow tight-binding inhibitor in vitro, with a K i value of 16.8 pM [3].
In vivo	SSR69071, when administered intravenously at a dose of 3 mg/kg, significantly diminishes cardiac infarct size if given before ischemia or immediately before reperfusion (–37%, P<0.05), and notably reduces cardiac elastase activity upon administration just prior to reperfusion [1]. In oral treatment scenarios, SSR69071 demonstrates dose-dependent effectiveness in inhibiting human leukocyte elastase (HLE) in bronchoalveolar lavage fluid from mice (ED50=10.5 mg/kg p.o.) and markedly reduces acute lung hemorrhage induced by HLE in mice (ED50=2.8 mg/kg p.o.) [2]. Additionally, SSR69071 effectively prevents carrageenan- and HLE-induced paw edema in rats at specific effective doses (ED30=2.2 mg/kg and ED30=2.7 mg/kg, respectively) following oral administration [2]. This research utilized male New Zealand white rabbits weighing 2-3 kg as the animal model [1], with SSR69071 dissolved in methane sulphonic acid before dilution in 0.9% saline for intravenous (i.v.) administration. The pivotal findings demonstrate that treatment with SSR69071 just prior to reperfusion significantly curtails cardiac elastase activity.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7965 mL	8.9826 mL	17.9653 mL
5 mM	0.3593 mL	1.7965 mL	3.5931 mL
10 mM	0.1797 mL	0.8983 mL	1.7965 mL
50 mM	0.0359 mL	0.1797 mL	0.3593 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.

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.