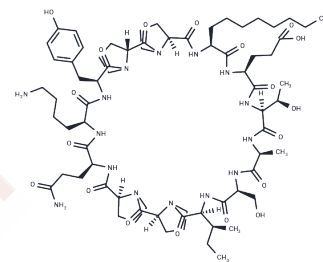


Lonodelestat

Chemical Properties

CAS No. :	906547-89-5
Formula:	C71H111N15O19
Molecular Weight:	1478.755
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Lonodelestat (POL6014) is a potent, orally active, and selective peptide inhibitor of human neutrophil elastase (hNE).
Targets(IC50)	Serine Protease
In vivo	Lonodelestat (POL6014), when intranasally administered to HNE-treated mice, significantly attenuated the inflammatory responses associated with Acute Lung Injury (ALI)[1]. Administered at varying doses (0.1, 0.5, 2, and 10 mg/kg), Lonodelestat demonstrated a dose-dependent decrease in inflammatory markers, prominently reducing the presence of macrophages, epithelial cells, neutrophils, and lymphocytes in bronchoalveolar lavage (BAL). The optimal effect was observed at a dose of 2 mg/kg, achieving a significant reduction in neutrophils (65%, p<0.001), epithelial cells (68%, p<0.001), macrophages (33%, p<0.001), and lymphocytes (77%, p<0.001). The study utilized ten-week-old male C57BL/6j mice, with dosages ranging from 0.05 to 5 mg/kg. Administration took place intranasally 15 minutes prior to HNE exposure (30 UI), effectively mitigating ALI's inflammatory processes[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.6762 mL	3.3812 mL	6.7624 mL
5 mM	0.1352 mL	0.6762 mL	1.3525 mL
10 mM	0.0676 mL	0.3381 mL	0.6762 mL
50 mM	0.0135 mL	0.0676 mL	0.1352 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.

Reference

Lagente V, et al. A novel Protein Epitope Mimetic (PEM) neutrophil elastase (NE) inhibitor, POL6014, inhibits human NE-induced acute lung injury in mice. ATS, San Diego, May 15-20, 2009.

Odile Sellier-Kessler, et al. Inhibition of lung inflammation by a protein epitope mimetic (PEM) neutrophil elastase inhibitor, POL6014, in a sub-chronic tobacco smoke (TS) model in mice. European Respiratory Journal 2013 42: 1762.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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