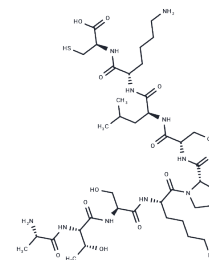


Hydrostatin-TL1

Chemical Properties

CAS No. :	2243975-43-9
Formula:	C ₃₉ H ₇₁ N ₁₁ O ₁₃ S
Molecular Weight:	934.11
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	Hydrostatin-TL1 (H-TL1) is a nonapeptide that acts as a TNF- α antagonist. This compound can be isolated from the venom glands of the sea snake Hydrophis cyanocinctus. H-TL1 competitively inhibits the interaction between TNF- α and TNFR1, thus reducing TNF- α cytotoxicity and inflammatory responses. It is applicable for research into TNF- α -related inflammatory diseases such as rheumatoid arthritis, osteoporosis, and inflammatory bowel disease (IBD).
Targets(IC50)	ERK,NF- κ B,Integrin,Interleukin,JNK,p38 MAPK,TNF
In vitro	Hydrostatin-TL1 (1-1000 nM, 18-20 hours) inhibits TNF- α induced L929 cell death in a concentration-dependent manner. Additionally, Hydrostatin-TL1 (0.2-1.6 μ M) significantly suppresses the phosphorylation of p38, ERK, JNK, and I κ B proteins in the TNF- α induced NF- κ B and MAPKs signaling pathways in HEK-293 cells. However, it does not inhibit the IL-1 β induced phosphorylation of I κ B in HEK-293 cells. Furthermore, Hydrostatin-TL1 (0.1-0.8 nM) decreases TNF- α mediated pro-inflammatory factor mRNA expression (IL-8, TNF- α , ICAM-1, and VCAM-1) in HEK-293 cells in a dose-dependent manner.
In vivo	Hydrostatin-TL1 administered intraperitoneally at a dosage of 0.5-1 mg/kg once daily for 7-8 consecutive days exhibits significant anti-inflammatory effects in a DSS-induced acute colitis mouse model. Additionally, Hydrostatin-TL1, given at doses of 20-80 μ g/kg at 1, 3, and 5 hours, dose-dependently decreases mortality rates in a mouse model of LPS-induced acute shock.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.0705 mL	5.3527 mL	10.7054 mL
5 mM	0.2141 mL	1.0705 mL	2.1411 mL
10 mM	0.1071 mL	0.5353 mL	1.0705 mL
50 mM	0.0214 mL	0.1071 mL	0.2141 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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