

## Ulinastatin

Cat. No.:	HY-134616
CAS No.:	80449-31-6
Target:	Ser/Thr Protease; Apoptosis
Pathway:	Metabolic Enzyme/Protease; Apoptosis
Storage:	-20°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)

# Ulinastatin

### SOLVENT & SOLUBILITY

In Vitro	H <sub>2</sub> O : 10 mg/mL (Need ultrasonic) DMSO : 1 mg/mL (Need ultrasonic)
----------	---

### BIOLOGICAL ACTIVITY

Description	Ulinastatin (Uristatin) is a trypsin and serine protease inhibitor. Ulinastatin is the main protein binding inhibitor of various trypsin, chymotrypsin, and various pancreatic proteases. Ulinastatin shows neuroprotective, anti-inflammatory, anti-apoptotic, anti-oxidant effects <sup>[1][2]</sup> .
-------------	--

**In Vitro** Ulinastatin (500-5000 U; 24 hours) markedly attenuates TLR4 expression and NF-κB activation in LPS-stimulated BEAS-2B cells<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis<sup>[1]</sup>

Cell Line:	Human lung epithelial BEAS-2B cells
Concentration:	500 U, 2500 U, 5000 U
Incubation Time:	24 hours
Result:	Markedly attenuated TLR4 expression and NF-κB activation in LPS-stimulated BEAS-2B cells.

**In Vivo** Ulinastatin (10000 U/kg; i.v.; twice) significantly protects animals from LPS-induced acute lung injury (ALI), decreasing the lung wet/dry weight ratio, ALI score, total cells, neutrophils, macrophages, myeloperoxidase activity, and malondialdehyde content, factors associated with lung histological damage<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male C57BL/6 mice (8-10 weeks old, 18-22 g) <sup>[1]</sup>
Dosage:	10000 U/kg

---

Administration:	i.v.; twice (1 h before and 6 h after LPS treatment)
Result:	Significantly protected animals from LPS-induced ALI.

---

## REFERENCES

---

- [1]. Shangping Fang, et al. Research progress of ulinastatin in the treatment of liver diseases. *Int J Clin Exp Pathol*. 2020 Nov 1;13(11):2720-2726.
- [2]. Cao C, et al. Ulinastatin Protects Against LPS-Induced Acute Lung Injury By Attenuating TLR4/NF- $\kappa$ B Pathway Activation and Reducing Inflammatory Mediators. *Shock*. 2018 Nov;50(5):595-605.
- 

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA