## **Product** Data Sheet

# LCKLSL hydrochloride

Cat. No.: HY-P2333A Molecular Formula:  $C_{30}H_{58}CIN_7O_8S$ 

Molecular Weight: 712.34

Sequence: Leu-Cys-Lys-Leu-Ser-Leu

Sequence Shortening: LCKLSL Target: Others Pathway: Others

Sealed storage, away from moisture and light Storage:

> Powder -80°C 2 years -20°C 1 year

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture

and light)

#### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 25 mg/mL (35.10 mM; Need ultrasonic) H<sub>2</sub>O: 10 mg/mL (14.04 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.4038 mL	7.0191 mL	14.0382 mL
	5 mM	0.2808 mL	1.4038 mL	2.8076 mL
	10 mM	0.1404 mL	0.7019 mL	1.4038 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: PBS Solubility: 8.33 mg/mL (11.69 mM); Clear solution; Need ultrasonic
- 2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (3.51 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (3.51 mM); Clear solution

#### **BIOLOGICAL ACTIVITY**

Description

LCKLSL hydrochloride is a N-terminal hexapeptide and a competitive annexin A2 (AnxA2) inhibitor. LCKLSL hydrochloride potently inhibits the binding of tissue plasminogen activator (tPA) to AnxA2. LCKLSL hydrochloride also inhibits the generation of plasmin and has anti-angiogenic roles<sup>[1]</sup>.

IC <sub>50</sub> & Target	Annexin A2 (AnxA2) <sup>[1]</sup>	
In Vitro	In human retinal microvascular endothelial cells (RMVECs), treatment with LCKLSL (0-2 mg) inhibits the generation of plasmin and suppresses the VEGF-induced activity of tPA under hypoxic conditions <sup>[1]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Application of LCKLSL in two in vivo models (in chicken chorioallantoic membrane and murine Matrigel plug assays) of angiogenesis demonstrates suppression of the angiogenic responses. Treatment with the LCKLSL peptide significantly decreases the vascular length. At a dose of 5 $\mu$ g/mL, the LCKLSL peptide significantly decreases the number of vascular branches, junctions and end-points <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

### **CUSTOMER VALIDATION**

- Biomed Pharmacother. 2023 Mar;159:114173.
- Inflamm Res. 2022 Jul 28.

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#### **REFERENCES**

[1]. Mallika Valapala, et al. A Competitive Hexapeptide Inhibitor of Annexin A2 Prevents Hypoxia-Induced Angiogenic Events. J Cell Sci. 2011 May 1;124(Pt 9):1453-64.

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

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