

Product Data Sheet

Product Name: HLF1-11

Cat. No.: GC72788

Chemical Properties

Cas. No. 183623-03-2

Formula $C_{56}H_{95}N_{25}O_{14}S$ M.Wt 1374.58

Solubility DMSO : ≥ 100 mg/mL (72.75 mM);
H₂O : 100 mg/mL (72.75 mM; Need ultrasonic)

Storage Sealed storage, away from moisture and light, under nitrogen

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

GRRRRSVQWCA

Background

HLF1-11, a human lactoferrin-derived peptide, is a broad spectrum antimicrobial agent. HLF1-11 inhibits human MPO activity. HLF1-11 also directs GM-CSF-driven monocyte differentiation toward macrophages, and enhances immune responses.

hLF1-11 (1, 10, and 100 µg/mL) directs differentiation of monocytes toward a macrophage subset during granulocyte-macrophage colony-stimulating factor (GM-CSF)-driven monocytes

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

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differentiation[2].hLF1-11 (0.5-250 µg/mL) inhibits human MPO activity[3].hLF1-11 (100 µg/mL, 90 min) inhibits ROS induction induced by LPS in monocytes[3].hLF1-11 (8-34 µM, 2 h) is active against fluconazole-resistant *C. albicans*[5].

hLF1-11 (20 mg/kg, injected into the debrided tibial cavity) shows ability against MRSA osteomyelitis in rabbits[4].hLF1-11 (40 µg/kg, i.v.) is active against *C. albicans*-infected mice[6].

References:

- [1]. Marty Wulferink, et al. The Peptide hLF1-11 as Broad Spectrum Antimicrobial Prophylaxis in HSCT Patients. *Blood* (2005) 106 (11): 3241. [2]. van der Does AM, et al. Antimicrobial peptide hLF1-11 directs granulocyte-macrophage colony-stimulating factor-driven monocyte differentiation toward macrophages with enhanced recognition and clearance of pathogens. *Antimicrob Agents Chemother.* 2010 Feb;54(2):811-6.
- [3]. van der Does AM, et al. The human lactoferrin-derived peptide hLF1-11 exerts immunomodulatory effects by specific inhibition of myeloperoxidase activity. *J Immunol.* 2012 May 15;188(10):5012-9.
- [4]. Faber C, et al. Comparable efficacies of the antimicrobial peptide human lactoferrin 1-11 and gentamicin in a chronic methicillin-resistant *Staphylococcus aureus* osteomyelitis model. *Antimicrob Agents Chemother.* 2005 Jun;49(6):2438-44.
- [5]. Lupetti A, et al. Candidacidal activities of human lactoferrin peptides derived from the N terminus. *Antimicrob Agents Chemother.* 2000 Dec;44(12):3257-63.
- [6]. Lupetti A, et al. Human lactoferrin-derived peptide's antifungal activities against disseminated *Candida albicans* infection. *J Infect Dis.* 2007 Nov 1;196(9):1416-24.

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