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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
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- Expressversand

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PRODUCT INFORMATION



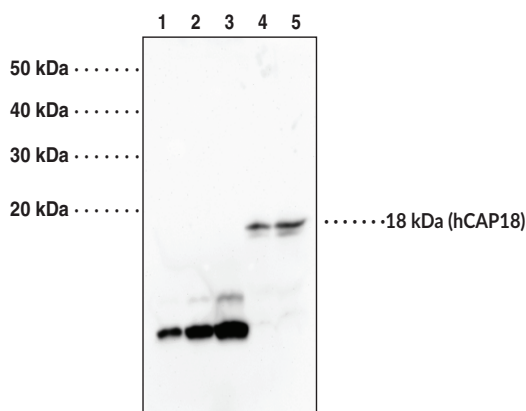
LL-37 Polyclonal Antibody

Item No. 15637

Overview and Properties

Contents: This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
Synonym: Antibacterial Protein LL-37
Immunogen: Synthetic human LL-37
Cross Reactivity: (+) LL-37, hCAP18
Species Reactivity: (+) Human
Uniprot No.: P49913
Form: Liquid
Storage: -20°C (as supplied)
Stability: ≥3 years
Storage Buffer: TBS, pH 7.4, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide
Host: Rabbit
Application: Western blot (WB); the recommended starting dilution is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: LL-37 Peptide (50 ng)
Lane 2: LL-37 Peptide (100 ng)
Lane 3: LL-37 Peptide (200 ng)
Lane 4: Human Neutrophils (10 µg)
Lane 5: Human Neutrophils (20 µg)

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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PRODUCT INFORMATION



Description

LL-37 is a cationic α -helical peptide expressed in human bone marrow, testis, granulocytes, gingival epithelium, and a variety of immune cells.¹ It is produced by proteolytic cleavage of the cathelicidin human cationic antimicrobial protein of 18 kDa (hCAP18).² LL-37 has antimicrobial and antiviral activity, and protein levels of LL-37 are increased in epithelial cells, macrophages, and neutrophils following bacterial infection *in vitro*.^{1,3-5} It functions as a chemoattractant for human monocytes, neutrophils, and T cells, and induces chemokine secretion from epithelial cells in infected tissues.^{2,6} LL-37 is a component of LPS-induced NETs produced from human neutrophils isolated from patients with systemic lupus erythematosus (SLE) or individuals without SLE.² It also enhances PMA- or *S. aureus*-induced formation of NETs.⁸ LL-37 can be citrullinated by protein arginine deiminase 2 (PAD2) and PAD4, a modification that reduces its antibacterial and antiviral activities.^{5,9} Native, but not citrullinated, LL-37 prevents mortality in a mouse model of D-galactosamine-sensitized endotoxic shock.⁹ Cayman's LL-37 Polyclonal Antibody can be used for Western blot.

References

1. Weinberg, A., Krisanaprakornkit, S., and Dale, B.A. Epithelial antimicrobial peptides: Review and significance for oral applications. *Crit. Rev. Oral Biol. Med.* **9(4)**, 399-414 (1998).
2. Méndez-Samperio, P. The human cathelicidin hCAP18/LL-37: A multifunctional peptide involved in mycobacterial infections. *Peptides* **31(9)**, 1791-1798 (2010).
3. Rivas-Santiago, B., Hernandez-Pando, R., Carranza, C., *et al.* Expression of cathelicidin LL-37 during *Mycobacterium tuberculosis* infection in human alveolar macrophages, monocytes, neutrophils, and epithelial cells. *Infect. Immun.* **76(3)**, 935-941 (2008).
4. Gudmundsson, G.H., Agerberth, B., Odeberg, J., *et al.* The human gene *FALL39* and processing of the cathelin precursor to the antibacterial peptide LL-37 in granulocytes. *Eur. J. Biochem.* **238(2)**, 325-332 (1996).
5. Casanova, V., Sousa, F.H., Shakamuri, P., *et al.* Citrullination alters the antiviral and immunomodulatory activities of the human cathelicidin LL-37 during rhinovirus infection. *Front. Immunol.* **11**, 85 (2020).
6. Yang, B.D., Chen, Q., Schmidt, A.P., *et al.* LL-37, the neutrophil granule- and epithelial cell-derived cathelicidin, utilizes formyl peptide receptor-like 1 (FPRL1) as a receptor to chemoattract human peripheral blood neutrophils, monocytes, and T cells. *J. Exp. Med.* **192(7)**, 1069-1074 (2000).
7. Kahlenberg, J.M., Carmona-Rivera, C., Smith, C.K., *et al.* Neutrophil extracellular trap-associated protein activation of the NLRP3 inflammasome is enhanced in lupus macrophages. *J. Immunol.* **190(3)**, 1217-1226 (2013).
8. Izumi, M., Miyaza, H., Kamakura, T., *et al.* Blasticidin S-resistance gene (*bsr*): A novel selectable marker for mammalian cells. *Exp. Cell Res.* **197(2)**, 229-233 (1991).
9. Koziel, J., Bryzek, D., Sroka, A., *et al.* Citrullination alters immunomodulatory function of LL-37 essential for prevention of endotoxin-induced sepsis. *J. Immunol.* **192(11)**, 5363-5372 (2014).

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