**BACKGROUND**

Cathelicidins are a family of antimicrobial proteins found in the peroxidase-negative granules of neutrophils. Along with the family of proteins known as defensins, cathelicidins participate in the first line of defense by preventing local infection and systemic invasion of microbes. FALL-39 precursor (FALL-39 peptide antibiotic, cationic anti-microbial protein, CAMP, CAP-18, HSD26) is a cathelicidin anti-microbial protein that contains the antibacterial peptide LL-37 (amino acids 134-170). In contrast to the defensins, which are cysteine-rich peptides that fold in β-pleated sheets, LL-37 is a cysteine-free peptide that can adopt an amphipathic α-helical conformation. LL-37 binds to bacterial lipopolysaccharides (LPS) and is a potent chemotactic factor for recruiting mast cells to sites of inflammation. LL-37 is present in inflammatory skin diseases that include psoriasis, sub-acute lupus erythematosus, dermatitis and nickel contact hypersensitivity. It is not found in normal skin epidermis. The secreted protein is expressed primarily in bone marrow, testis and neutrophils. The mouse and rat ortholog, CRAMP (cathelin-related antimicrobial peptide), is also part of the cathelicidin family of host defense peptides. These include precursors of potent antimicrobial peptides that direct antimicrobial activity against various microbial pathogens and also activate mesenchymal cells during wound repair. CRAMP is expressed in testis, spleen, stomach and intestine.

**CHROMOSOMAL LOCATION**

Genetic locus: CAMP (human) mapping to 3p21.31.

**SOURCE**

LL-37 (D-5) is a mouse monoclonal antibody raised against amino acids 131-170 mapping at the C-terminus of LL-37 proteolytic fragment of CAP-18 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. LL-37 (D-5) is available conjugated to agarose (sc-166770 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166770 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to phycoerythrin (sc-166770 PE), fluorescein (sc-166770 FITC), Alexa Fluor® 488 (sc-166770 AF488), Alexa Fluor® 546 (sc-166770 AF546), Alexa Fluor® 594 (sc-166770 AF594) or Alexa Fluor® 647 (sc-166770 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166770 AF680) or Alexa Fluor® 790 (sc-166770 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**STORAGE**

Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.

**APPLICATIONS**

LL-37 (D-5) is recommended for detection of mature LL-37 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LL-37 siRNA (h): sc-43697, LL-37 shRNA Plasmid (h): sc-43697-SH and LL-37 shRNA (h) Lentiviral Particles: sc-43697-V.

Molecular Weight of LL-37 peptide: 3.4 kDa.

Molecular Weight of CAP-18 precursor: 16 kDa.

Molecular Weight of CAP-18 prodomain: 14 kDa.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.