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Cathelicidin Antibody

Catalog # ASC10628

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P49913
Other Accession	NP_004336, 39753970
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	19301
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Cathelicidin antibody can be used for detection of Cathelicidin by Western blot at 1 □g/mL. Antibody can also be used for immunohistochemistry starting at 5 □g/mL. For immunofluorescence start at 20 □g/mL.

Additional Information

Gene ID	820
Other Names	Cathelicidin antimicrobial peptide, 18 kDa cationic antimicrobial protein, CAP-18, hCAP-18, Antibacterial protein FALL-39, FALL-39 peptide antibiotic, Antibacterial protein LL-37, CAMP, CAP18, FALL39
Target/Specificity	CAMP;
Reconstitution & Storage	Cathelicidin antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	Cathelicidin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CAMP (HGNC:1472)
Function	Antimicrobial protein that is an integral component of the innate immune system (PubMed:14978112, PubMed:16637646, PubMed:18818205, PubMed:22879591, PubMed:9736536). Binds to bacterial lipopolysaccharides (LPS) (PubMed:16637646, PubMed:18818205). Acts via neutrophil N-formyl peptide receptors to enhance the release of CXCL2 (PubMed:22879591). Postsecretory processing generates multiple cathelicidin antimicrobial peptides with various lengths which act as a topical antimicrobial defense in sweat on skin (PubMed:14978112). The unprocessed precursor form,

	cathelicidin antimicrobial peptide, inhibits the growth of Gram-negative E.coli and E.aerogenes with efficiencies comparable to that of the mature peptide LL-37 (in vitro) (PubMed:9736536).
Cellular Location	Secreted. Vesicle. Note=Stored as pro-peptide in granules and phagolysosomes of neutrophils (PubMed:7529412, PubMed:9736536). Secreted in sweat onto skin (PubMed:14978112).
Tissue Location	Expressed in neutrophilic granulocytes (at protein level) (PubMed:7529412, PubMed:7615076, PubMed:7890387, PubMed:8681941, PubMed:8946956, PubMed:9736536). Expressed in bone marrow (PubMed:7890387). [Antibacterial peptide FALL-39]: Expressed in bone marrow and testis.

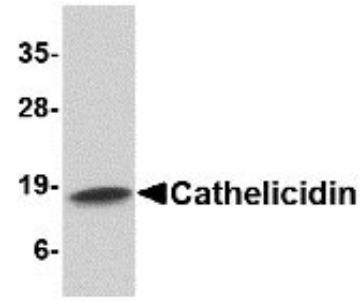
Background

Cathelicidin Antibody: One component of host defense at mucosal surfaces is epithelial-derived antimicrobial peptides. Cathelicidins are one family of antimicrobial peptides characterized by conserved pro-peptide sequences that have been identified in epithelial tissues and some myeloid cells of humans and animals. LL-37/hCAP-18 is the only Cathelicidin found in humans and is expressed in inflammatory and epithelial cells. The presence of these molecules is essential for defense against invasive bacterial infection in skin. Besides their direct antimicrobial function, Cathelicidins have multiple roles in mediating innate and adaptive immunity, such as endotoxin neutralizing, angiogenesis, wound healing and promoting neutrophil chemotaxis and mast cell recruitment. Finally, Cathelicidin antimicrobial peptides qualify as prototypes of innovative drugs that may be used to treat infection and/or modulate the immune response.

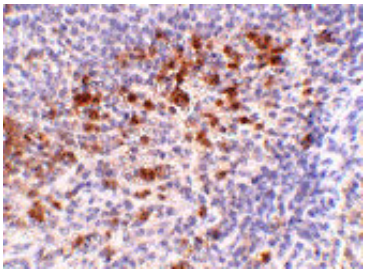
References

Zaiou M and Gallo RL. Cathelicidins, essential gene-encoded mammalian antibiotics. J. Mol. Med. 2002; 80:549-61.
Agerberth B, Gunne H, Odeberg J, et al. FALL-39, a Putative Human Peptide Antibiotic, is Cysteine-Free and Expressed in Bone Marrow and Testis. Proc. Natl. Acad. Sci. USA 1995; 92:195-9.
Nizet V, Ohtake T, Lauthe X, et al. Innate antimicrobial peptide protects the skin from invasive bacterial infection. Nature 2001; 414:454-7.
Koczulla R, von Degenfeld G, Kupatt C, et al. An angiogenic role for the human peptide antibiotic LL-37/hCAP-18. J. Clin. Invest. 2003; 111:1665-72.

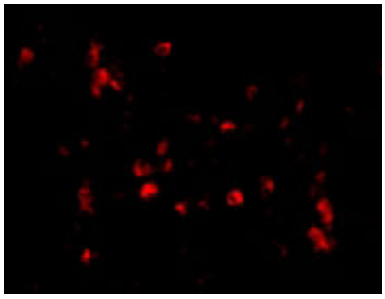
Images



Western blot analysis of Cathelicidin in Human spleen tissue lysate with Cathelicidin antibody at 1 µg/mL.



Immunohistochemistry of Catheli-cidin in human spleen tissue with Cathelicidin antibody at 5 µg/mL.



Immunofluorescence of Cathelicidin in Human Spleen cells with Cathelicidin antibody at 20 µg/mL.

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