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Defensin alpha 5 Rabbit pAb

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Catalog # AP94769

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q01523
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	10071
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Defensin alpha 5
Epitope Specificity	31-94/94
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Secreted. Cytoplasmic vesicle > secretory vesicle. Peptides HD5(20-94), HD5(23-94) and HD5(29-94) are found within tissues, HD5(20-94) being the predominant intracellular form. Peptides HD5(56-94) and HD5(63-94) are found in the extracellular milieu, HD5(63-94) being the most abundant form.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Has antimicrobial activity against Gram-negative and Gram-positive bacteria. Defensins are thought to kill microbes by permeabilizing their plasma membrane. All DEFA5 peptides exert antimicrobial activities, but their potency is affected by peptide processing.

Additional Information

Gene ID	1670
Other Names	Defensin alpha 5 {ECO:0000312|HGNC:HGNC:2764}, Defensin-5, HD5(20-94), HD5(23-94), HD5(29-94), HD5(56-94), HD5(63-94), DEFA5, DEF5
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	DEFA5

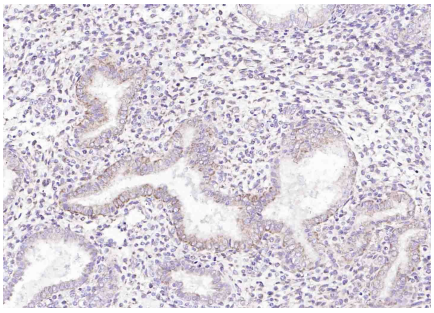
Synonyms	DEF5
Function	Host-defense peptide that maintains sterility in the urogenital system (PubMed:12021776, PubMed:12660734, PubMed:15616305, PubMed:19589339, PubMed:22359618, PubMed:22573326, PubMed:25354318, PubMed:25782105, PubMed:30808760). Has antimicrobial activity against a wide range of bacteria, including Gram-negative E.coli, P.aeruginosa and S.typhimurium, and Gram-positive E.aerogenes, S.aureus, B.cereus, E.faecium and L.monocytogenes (PubMed:12021776, PubMed:15616305, PubMed:19589339, PubMed:22359618, PubMed:22573326, PubMed:25354318, PubMed:30808760). Confers resistance to intestinal infection by S.typhimurium (PubMed:12660734). Exhibits antimicrobial activity against enteric commensal bacteria such as B.adolescentis, L.acidophilus, B.breve, L.fermentum, B.longum and S.thermophilus (PubMed:25354318). Binds to bacterial membranes and causes membrane disintegration (PubMed:25782105). Induces the secretion of the chemokine IL-8 by intestinal epithelial cells (PubMed:19589339). Binds to B.antracis lef/lethal factor, a major virulence factor from B.anthracis, and neutralizes its enzymatic activity (PubMed:22573326).
Cellular Location	Secreted. Cytoplasmic vesicle, secretory vesicle. Note=Stored as propeptide HD5(20-94) in secretory granules of small intestinal Paneth cells and found in the ileum lumen as processed mature peptides, predominantly in the HD5(63-94) form (PubMed:12021776). Peptides HD5(20-94), HD5(23-94) and HD5(29-94) are found within tissues, HD5(20- 94) being the predominant intracellular form. Peptides HD5(56-94) and HD5(63-94) are found in the extracellular milieu, HD5(63-94) being the most abundant form (PubMed:12021776). Secreted into the female genital tract lumen (PubMed:9588893).
Tissue Location	Expressed in the gastrointestinal, reproductive, and urinary tracts (at protein level) (PubMed:12021776, PubMed:1429669, PubMed:22359618, PubMed:9588893). Expressed in Paneth cells of the small intestine (at protein level) (PubMed:12021776, PubMed:1429669) Expressed throughout the urothelium of the lower urinary tract and in the collecting tubules of the kidney (at protein level) (PubMed:22359618). Expressed in stratified squamous epithelial cells of the female genital tract epithelia, such as in vagina, ectocervix, endocervix, endometrium, and fallopian tube (at protein level) (PubMed:9588893). Endometrial expression correlates with stages of the menstrual cycle: Expression is low during the early proliferative phase, increased during the mid- to late proliferative phase, peaks during the early secretory phase of the cycle, and decreases during the mid- to late secretory phase (PubMed:9588893)

Background

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Images

Paraformaldehyde-fixed, paraffin embedded (human endometrial); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Incubation with (Defensin alpha 5) Polyclonal Antibody,



Unconjugated (AP94769) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.