

Defensin alpha 1 Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP51161

Product Information

Application WB
Primary Accession P59665
Reactivity Human
Host Rabbit
Clonality Polyclonal
Calculated MW 10201

Additional Information

Gene ID 1667;728358

Other Names Neutrophil defensin 1, Defensin, alpha 1, HNP-1, HP-1, HP 1-56,

Neutrophil defensin 2, HNP-2, HP-2, HP2, DEFA1, DEFA2, MRS

Target/Specificity KLH-conjugated synthetic peptide encompassing a sequence within the center

region of human Defensin alpha 1. The exact sequence is proprietary.

Dilution WB~~ 1:1000

Format 0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name DEFA1

Synonyms DEF1, DEFA2, MRS

Function Effector molecule of the innate immune system that acts via antibiotic-like

properties against a broad array of infectious agents including bacteria, fungi, and viruses or by promoting the activation and maturation of some APCs

(PubMed: 15616305, PubMed: 17142766, PubMed: 20220136,

PubMed:24236072). Interacts with the essential precursor of cell wall synthesis lipid II to inhibit bacterial cell wall synthesis (PubMed:20214904). Inhibits adenovirus infection via inhibition of viral disassembly at the vertex region, thereby restricting the release of internal capsid protein pVI, which is

required for endosomal membrane penetration during cell entry

(PubMed: 18191790). In addition, interaction with adenovirus capsid leads to the redirection of viral particles to TLR4 thereby promoting a NLRP3-mediated

inflammasome response and interleukin 1-beta (IL-1beta) release

(PubMed:35080426). Induces the production of proinflammatory cytokines

including type I interferon (IFN) in plasmacytoid dendritic cells (pDCs) by triggering the degradation of NFKBIA and nuclear translocation of IRF1, both of which are required for activation of pDCs (PubMed: 27031443).

Cellular Location

Secreted.

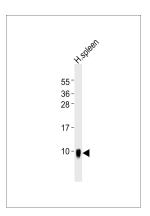
Background

Defensin 1 and defensin 2 have antibacterial, fungicide and antiviral activities. Has antimicrobial activity against Gram- negative and Gram-positive bacteria. Defensins are thought to kill microbes by permeabilizing their plasma membrane.

References

Daher K.A., et al. Proc. Natl. Acad. Sci. U.S.A. 85:7327-7331(1988). Mars W.M., et al. Blood 71:1713-1719(1988). Wiedemann L.M., et al. Leukemia 3:227-234(1989). Mars W.M., et al.J. Biol. Chem. 270:30371-30376(1995). Linzmeier R., et al. FEBS Lett. 321:267-273(1993).

Images



Anti-Defensin alpha 1 Antibody at 1:1000 dilution + huamn spleen lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution Predicted band size: 10 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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