

**Anti-Alpha Defensin 1 Picoband Antibody**  
**Catalog # ABO10346****Specification**

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**Anti-Alpha Defensin 1 Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P59665</a>
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Neutrophil defensin 1(DEFA1) detection. Tested with WB in Human;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Alpha Defensin 1 Picoband Antibody - Additional Information**

**Gene ID** 1667;728358

**Other Names**

Neutrophil defensin 1, Defensin, alpha 1, HNP-1, HP-1, HP1, HP 1-56, Neutrophil defensin 2, HNP-2, HP-2, HP2, DEFA1, DEF1, DEFA2, MRS

**Calculated MW**

10201 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human, Rat<br>

**Subcellular Localization**

Secreted.

**Protein Name**

Neutrophil defensin 1

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human Alpha Defensin 1 (65-94aa ACYCRIPACIAGERRYGTCTIYQGRWAFCC).

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins.

Storage

**At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.**

## Anti-Alpha Defensin 1 Picoband Antibody - 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:<a href="http://www.uniprot.org/citations/15616305" target="\_blank">15616305</a>, PubMed:<a href="http://www.uniprot.org/citations/17142766" target="\_blank">17142766</a>, PubMed:<a href="http://www.uniprot.org/citations/20220136" target="\_blank">20220136</a>, PubMed:<a href="http://www.uniprot.org/citations/24236072" target="\_blank">24236072</a>). Interacts with the essential precursor of cell wall synthesis lipid II to inhibit bacterial cell wall synthesis (PubMed:<a href="http://www.uniprot.org/citations/20214904" target="\_blank">20214904</a>). 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:<a href="http://www.uniprot.org/citations/18191790" target="\_blank">18191790</a>). 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:<a href="http://www.uniprot.org/citations/35080426" target="\_blank">35080426</a>). 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:<a href="http://www.uniprot.org/citations/27031443" target="\_blank">27031443</a>).

### Cellular Location

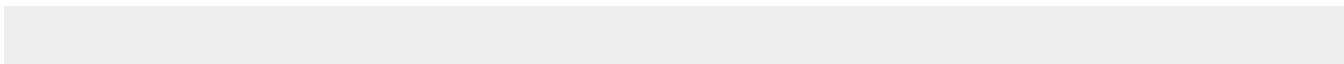
Secreted.

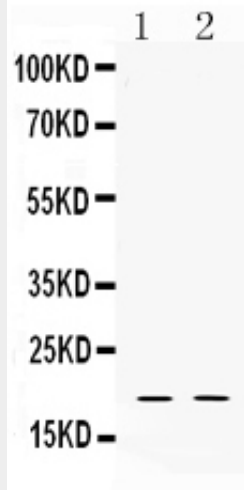
## Anti-Alpha Defensin 1 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-Alpha Defensin 1 Picoband Antibody - Images





Western blot analysis of Alpha Defensin 1 expression in rat testis extract (lane 1) and HELA whole cell lysates (lane 2). Alpha Defensin 1 at 19KD was detected using rabbit anti- Alpha Defensin 1 Antigen Affinity purified polyclonal antibody (Catalog #ABO10346) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method .

#### **Anti-Alpha Defensin 1 Picoband Antibody - Background**

Defensin, alpha 1, also known as human alpha defensin 1, human neutrophil peptide 1 (HNP-1) or neutrophil defensin 1 is a human protein that is encoded by the DEFA1 gene. Defensins are a family of antimicrobial and cytotoxic peptides thought to be involved in host defense. They are abundant in the granules of neutrophils and also found in the epithelia of mucosal surfaces such as those of the intestine, respiratory tract, urinary tract, and vagina. Members of the defensin family are highly similar in protein sequence and distinguished by a conserved cysteine motif. The protein encoded by this gene, defensin, alpha 1, is found in the microbicidal granules of neutrophils and likely plays a role in phagocyte-mediated host defense. Several alpha defensin genes are clustered on chromosome 8. This gene differs from defensin, alpha 3 by only one amino acid. This gene and the gene encoding defensin, alpha 3 are both subject to copy number variation.