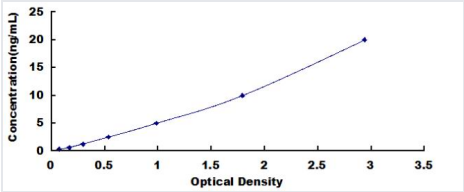
Defensin Alpha 1, Neutrophil (DEFa1) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Defensin Alpha 1, Neutrophil (DEFa1), ELISA Kit
Full Product Name	Human Defensin Alpha 1, Neutrophil (DEFa1) ELISA Kit
Product Gene Name	DEFa1 elisa kit
Product Synonym Names	DEF1; DEFA2; HNP-1; HP-1; MRS; DEF3; HNP-3; HNP3; HP-3; Defensin,Alpha 1; Myeloid-Related Sequence
Species Reactivity	Human
Assay Type	Sandwich
Samples	Serum, Plasma, Tissue Homogenates, Cell Lysates, Cell Culture Supernates or Other Biological Fluids.
Detection Range	0.312-20ng/mL
Sensitivity	0.146ng/mL
Preparation and Storage	For unopened kits: All the reagents should be kept at 4 degree C upon receipt. For opened kits: Once the kit is opened, the remaining reagents still need to be stored according to the above storage conditions. In addition, return the unused wells to the foil pouch containing the desiccant pack and reseal along entire edge of zip-seal.
Molecular Weight	10,201 Da
OMIM	125220
3D Structure	ModBase 3D Structure for P59665
RTU ELISA Kit's Advantage	The Ready-To-Use (RTU) Kits require fewer steps in setup and take less time to run. Detection Solutions are pre-diluted and total incubation time is shorter than many other ELISA Kits.
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for DEFa1 elisa kit	Test Principle: The microtiter plate provided in this kit has been pre-coated with an antibody specific to DEFa1. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to DEFa1. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain DEFa1, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of DEFa1 in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of DEFa1 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for DEFa1 purchase	MBS458814 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Defensin Alpha 1, Neutrophil (DEFa1) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing DEFa1. The ELISA analytical biochemical technique of the MBS458814 kit is based on DEFa1 antibody-DEFa1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect DEFa1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, DEFa1. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of DEFa1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DEFa1. It may not necessarily be applicable to this product.

NCBI GI #	124248516
NCBI GeneID	728358
NCBI Accession #	NP_001035965.1
UniProt Primary Accession #	P59665
UniProt Secondary Accession #	P11479; Q14125; Q6EZF6
UniProt Related Accession #	P59665
GenBank Nucleotide #	NM_001042500.1
NCBI Official Full Name	neutrophil defensin 1 isoform 2 preproprotein
NCBI Official Synonym Full Names	defensin alpha 1B
NCBI Official Symbol	DEFA1B
NCBI Official Synonym Symbols	HP1; HP-1; HNP-1
UniProt Protein Name	Neutrophil defensin 1
UniProt Synonym Protein Names	Defensin, alpha 1; HNP-1; HP-1; HP1
Protein Family	Alpha-defensin
UniProt Gene Name	DEFA1
UniProt Synonym Gene Names	DEF1; DEFA2; MRS; HP-1; HP1; HP-2; HP2
NCBI Protein Information	neutrophil defensin 1
NCBI Summary for DEFa1	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. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2014]
UniProt Comments for DEFa1	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.
Research Articles on DEFa1	**1.** binding of HNP1 to affected bacterial toxins caused their local unfolding, potentiated their thermal melting and precipitation, exposed new regions for proteolysis, and increased susceptibility to collisional quenchers.
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