

Human BD-3 ELISA Kit | BD-3 elisa kit

BD-3 (Human) OmniKine ELISA Kit

CATALOG #
AAA315596

REACTIVITY
Human

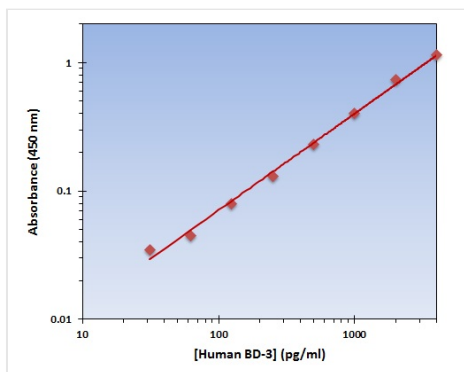
PRODUCT SYNONYMS

BD-3; BD-3 (Human) OmniKine ELISA Kit; Beta-defensin 103; Beta-defensin 3; DEFB-3; HBD3; BD3; DEFB103; DEFB3; BD-3 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	The OmniKine™ Human BD-3 ELISA is capable of recognizing both recombinant and naturally produced Human BD-3 proteins. The antigens listed below were tested at 50 ng/ml and did not exhibit significant cross reactivity or interference.
Form/Format	12 x 8-Well Microstrips
Sequence Length	67
Assay Type	Quantitative Sandwich
Preparation and Storage	Store entire kit at 4 degree C until use.

IMAGES



Application Data

The OmniKine Human BD-3 ELISA Kit allows for the detection and quantification of endogenous levels of natural and/or recombinant Human BD-3 proteins within the range of 64-4000 pg/ml.

ADDITIONAL INFORMATION

Related Product Information for BD-3 elisa kit	Principle of the Assay: The OmniKine™ Human BD-3 ELISA Kit contains the components necessary for quantitative determination of natural or recombinant Human BD-3 concentrations within any experimental sample including cell lysates, serum and plasma. This particular immunoassay utilizes the quantitative technique of a "Sandwich" Enzyme-Linked Immunosorbent Assay (ELISA) where the target protein (antigen) is bound in a "sandwich" format by the primary capture antibodies coated to each well-bottom and the secondary detection antibodies added subsequently by the investigator. The capture antibodies coated to the bottom of each well are specific for a particular epitope on Human BD-3 while the user-added detection antibodies bind to epitopes on the captured target protein. Amid each step of the procedure, a series of wash steps must be performed to ensure the elimination of non-specific binding between proteins to other proteins or to the solid phase. After incubation and "sandwiching" of the target antigen, a peroxidase enzyme is conjugated to the constant heavy chain of the secondary antibody (either covalently or via Avidin/Streptavidin-Biotin interactions), allowing for a colorimetric reaction to ensue upon substrate addition. When the substrate TMB (3, 3', 5, 5'-Tetramethylbenzidine) is added, the reaction catalyzed by peroxidase yields a blue color that is representative of the antigen concentration. Upon sufficient color development, the reaction can be terminated through addition of Stop Solution (2 N Sulfuric Acid) where the color of the solution will turn yellow. The absorbance of each well can then be read by a spectrophotometer, allowing for generation of a standard curve and subsequent determination of protein concentration. Background/Introduction: Human BD-3, also known as Beta-Defensin 3, is a 67 amino acid cytokine protein encoded by the DEFB103A gene located at locus 8p23.1 on chromosome 8. After signal sequence processing and maturation, the cytokine becomes 45 amino acid residues long (from 23 to 67). Human BD-3 is known to exhibit antimicrobial activity against Gram-positive bacteria, S.aureus and S.pyogenes, Gram-negative bacteria P.aeruginosa and E.coli and the yeast C.albicans. Moreover, the cytokine kills multiresistant S.aureus and vancomycin-resistant E.faecium. This particular BD protein is expressed highly in skin and tonsils, and to a lesser extent in trachea, uterus, kidney, thymus, adenoid, pharynx and tongue. It has much lower expression in salivary glands, bone marrow, colon, stomach, polyps and larynx along with no expression in the small intestine. Furthermore, induction of BD-3 is achieved through bacterial infection or detection of lipopolysaccharides (LPS) and by IFN-gamma.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	125656159
NCBI GeneID	414325
NCBI Accession #	NP_001075020.1
NCBI GenBank Nucleotide #	NM_001081551.3
UniProt Accession #	P81534; Q8NFG6; Q9NPF6
Molecular Weight	7,697 Da
NCBI Official Full Name	beta-defensin 103
NCBI Official Synonym Full Names	defensin beta 103A
NCBI Official Symbol	DEFB103A
NCBI Official Synonym Symbols	BD-3; HBD3; HBP3; DEFB3; HBP-3; hBD-3; DEFB-3; DEFB103
NCBI Protein Information	beta-defensin 103
UniProt Protein Name	Beta-defensin 103
UniProt Gene Name	DEFB103A
UniProt Synonym Gene Names	BD3; DEFB103; DEFB3; BD-3; DEFB-3; HBD3; hBD-3

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.