



Recombinant Human BD-1 (47aa)

20150227BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-133
Size:	20 µg
Lot. No.:	According to product label

Sequence

GNFLTGLGHR SDHYNCVSSG GQCLYSACPI FTKIQGTCYR GKAKCK

Database References

Protein RefSeq:	NP_5209.1
Uniprot ID:	P60022
mRNA RefSeq:	NM_005218

Scientific Background

Gene-ID (NCBI):	1672
Synonyms:	DEFB1; BD1; HBD1; DEFB-1; DEFB101

Defensins (alpha and beta) are cationic peptides with a broad spectrum of antimicrobial activity that comprise an important arm of the innate immune system. The alpha-defensins are distinguished from the beta-defensins by the pairing of their three disulfide bonds. To date, four human beta-defensins have been identified; BD-1, BD-2, BD-3 and BD-4. Beta-defensins are expressed on some leukocytes and at epithelial surfaces. In addition to their direct antimicrobial activities, they are chemoattractant towards immature dendritic cells and memory T cells. The Beta-defensin proteins are expressed as the C-terminal portion of precursors and are released by proteolytic cleavage of a signal sequence and, in the case of BD-1 (36 a.a.), a propeptide region. Beta-defensins contain a six-cysteine motif that forms three intra-molecular disulfide bonds. Beta-Defensins are 3-5 kDa peptides ranging in size from 33-47 amino acid residues. Recombinant Human BD-1 is a 5.0 kDa protein containing 47 amino acid residues.

Product Specifications

Expressed in	E. coli
Purity	> 98% by SDS-PAGE & HPLC analyses
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	47
MW:	5.0 kDa

Biological Activity: Determined by its ability to chemoattract CD34+ dendritic cells using a concentration range of 100-1000 ng/ml.



AVOID REPEATED FREEZE AND THAW CYCLES!