



## Recombinant Human BD-3

20150227BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>100-135S</b>
Size:	5 µg
Lot. No.:	According to product label

### Sequence

GIINTLQKYY CRVRGGRCV LSCLPKEEQI GKCSTRGRKC CRRKK

### Database References

<b>Protein RefSeq:</b>	NP_061131.1
<b>Uniprot ID:</b>	P81534
<b>mRNA RefSeq:</b>	NM_001081551.2

## Scientific Background

<b>Gene-ID (NCBI):</b>	414325
<b>Synonyms:</b>	DEFB103A; BD-3; HBD3; HBP3; DEFB3; HBP-3; hBD-3; DEFB-3; DEFB103

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-3 is a 5.1 kDa protein containing 45 amino acid residues.

## Product Specifications

<b>Expressed in</b>	E. coli
<b>Purity</b>	> 98% by SDS-PAGE & HPLC analyses
<b>Endotoxin level</b>	< 0.1 ng /µg of protein (<1EU/µg).
<b>Formulation</b>	lyophilized
<b>Length (aa):</b>	45
<b>MW:</b>	5.1 kDa

**Biological Activity:** Exhibits antimicrobial activity against gram-positive bacteria *S. aureus* and gram-negative *P. aeruginosa* and *E.coli*.



**AVOID REPEATED FREEZE AND THAW CYCLES!**