

## DEFB103A

### Recombinant Human beta Defensin 3

<b>Catalog No.</b>	CRB502A CRB502B CRB502C	<b>Quantity:</b>	5 µg 20 µg 1.0 mg
<b>Alternate Names:</b>	DEFB103, DEFB3, HBD-3, HBD3, HBP-3, HBP3, beta-defensin 3, defensin, beta 3		
<b>Gene ID:</b>	55894		
<b>Description:</b>	<p>Recombinant human Defensin beta 3 contains 45 amino acid residues and is an antimicrobial peptide belonging to the distinct family of beta-defensins.</p> <p>Background: 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.</p>		
<b>Source:</b>	<i>E. coli</i>		
<b>Molecular Weight:</b>	5.2 kDa		
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4 + 13 0mM NaCl.		
<b>Purity:</b>	>98% by SDS-PAGE and HPLC		
<b>Endotoxin Level:</b>	Less than 1EU/µg as determined by LAL method.		
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by anti-microbial activity against E.coli. is less than 30 µg/ml, corresponding to a specific activity of > 33.3 IU/mg.		
<b>Specific Activity:</b>	> 33.3 IU/mg.		
<b>Amino Acid Sequence:</b>	GIINTLQKYY CRVRGGRCV LSCLPKEEQI GKCSTRGRKC CRRKK		
<b>Reconstitution:</b>	<b>Centrifuge vial prior to opening.</b> Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/ml. Further dilutions should be made in appropriate buffered solutions.		
<b>Storage &amp; Stability:</b>	This lyophilized preparation is stable at 2-4°C, but should be kept desiccated at -20°C for long term storage. Upon reconstitution, the preparation is stable for up to one week at 2 -4°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. <b>Avoid repeated freeze/thaw cycles.</b>		

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