DEFB1
Recombinant Human beta-Defensin 1

Catalog No.	CRB503A	**Quantity:**	5 µg
	CRB503B		20 µg
	CRB503C		1.0 mg

Alternate Names: BD1, DEFB-1, DEFB101, HBD1, beta-defensin-1

Description: Recombinant Human BD-1 is a single non-glycosylated polypeptide chain containing 47 amino acids.
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.

Gene ID: 1672

Protein Accession No: P60022

Source: *E. coli*

Molecular Weight: 5.1 kDa

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4 + 130 mM NaCl.

Purity: >98% by SDS-PAGE and HPLC

Endotoxin Level: Less than 1EU/µg as determined by LAL method.

Biological Activity: Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using CD34+ dendritic cells is in a concentration range of 100.0-1000.0 ng/ml.

Amino Acid Sequence: GNFLTGLGHR SDHYNCVSSG GQCLYSACPI FTKIQGTCYR GKAKCCK

Reconstitution: **Centrifuge vial prior to opening.** 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.

Storage & Stability: 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

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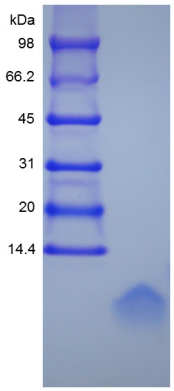
and store at -20°C to -80°C. **Avoid repeated freeze/thaw cycles.**

SDS-PAGE



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