**PRODUCT INFORMATION**

**Description:** 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 α-defensins are distinguished from the β-defensins by the pairing of their three disulfide bonds. To date, four human β-defensins have been identified: BD-1, BD-2, BD-3 and BD-4. β-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 β-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. B-defensins contain a six-cysteine motif that forms three intra-molecular disulfide bonds. β-defensins are 3-5 kDa peptides ranging in size from 33-47 amino acid residues.

**Amino-Acid Sequence:** 47 aa, non-glycosylated

**M. W.** : 5,000Da

**Recombinant:** Expressed in E. coli

**Purity:** >98% by SDS-PAGE and HPLC analyses.

**Formulation:** Lyophilized from a 0.2mm filtered concentrated (1.0mg/ml) solution in 20mM PB, pH 7.4, 130mM NaCl.

**Biological Activity:** Fully biologically active when compared to standard. Determined by its ability to chemoattract CD34+ dendritic cells using a concentration range of 0.1-1.0 ug/ml.

**Endotoxin:** Less than 1EU/mg of rHuBD-1 as determined by LAL method.

**Reconstitution:** We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤-20°C. Further dilutions should be made in appropriate buffered solutions.

**Storage:** This lyophilized preparation is stable for several weeks at 2-8°C, but should be kept at −20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at −20°C to −70°C. Avoid repeated freeze/thaw cycles.

**REFERENCES**


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