

DEFB103A

Recombinant Human Beta-Defensin 3

Catalog No.	CRB502A	Quantity:	5 µg
	CRB502B		20 µg
	CRB502C		1.0 mg

Alternate Names: Beta-defensin 103, BD-3, DEFB-3, hBD-3, HBD3, HBP-3, Defensin, beta 103

Gene ID: 55894

UniProt ID: P81534

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 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.

Source: *E. coli*

Molecular Weight: 5.2 kDa (45 aa) monomer

Formulation: Lyophilized from a sterile-filtered solution containing 0.1% Trifluoroacetic acid (TFA).

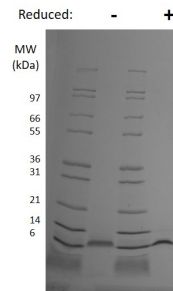
Purity: ≥ 95% by Reducing and Non-reducing SDS-PAGE

Endotoxin Level: ≤ 0.1 EU/µg as determined by kinetic LAL method.

Amino Acid Sequence: GIINTLQKYY CRVRGGRCV LSCLPKEEQI GKCTRGRKC CRRKK

Reconstitution: **Centrifuge vial prior to opening.** Add sterile 10 mM acetic acid to a concentration of 0.1 mg/ml and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX.** Allow several minutes for reconstitution.

Storage & Stability: Store as supplied at -20°C to -80°C for up to 1 year. Upon reconstitution, prepare working aliquots and store at -20°C to -80°C. It is recommended that a carrier protein such as 0.1% HSA or BSA is added for long term storage. **Avoid repeated freeze-thaw cycles.**



Human Beta-Defensin Gel

Figure: 1 ug in each lane (-) non-reducing conditions and (+) reducing conditions in a 4-20% Tris-Glycine gel, stained with Coomassie Blue. Human BD-3 is predicted to have a MW of 5.2 kDa.

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