Defb3
Recombinant Rat beta-Defensin 3

Catalog No.	CS507A CS507B CS507C	**Quantity:**	5 µg 20 µg 1 mg

Alternate Names: BD-3, Defensin, beta 3

Description: Beta defensin-3, also known as BD-3 and DEFB-3, is a membrane active cationic peptide that functions in inflammation and innate immune responses and coded by Defb 3 gene on chromosome 8 in mouse. There are at least 30 beta-defensins which are distinguished from alpha-defensins by the connectivity pattern of their three intra-molecular disulfide bonds. BD3 is widely expressed among epithelial tissues, notably by keratinocytes and airway epithelial cells. It is upregulated in response to proinflammatory cytokines, microbial and viral infections, and at the edges of skin wounds. BD3 induction in osteoarthritis chondrocytes promotes MMP1 and 13 productions and inhibits TIMP1 and 2 expressions.

Recombinant Rat BD-3 is a single non-glycosylated polypeptide chain containing 41 amino acid residues.

Gene ID: 641623

Source: *E. coli*

Molecular Weight: 4.5 kDa

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

Purity: >95 % by SDS-PAGE and HPLC analyses.

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

Biological Activity: Fully biologically active when compared to standard. Measured by its antimicrobial activity against *E. coli.* The ED_{50} for this effect is typically 4-20 µg/ml.

Amino Acid Sequence: KKVYNAVSCM TNGGICWLKC SGTFREIGSC GTRQLKCCKK K

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

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