

## Recombinant Rat Beta Defensin-3 (rr BD-3)

**Synonyms:** Defensin beta 3 (DEFB3)

**Introduction:** Defensins form a family of microbicidal and cytotoxic peptides made by neutrophils. Members of the defensin family are highly similar in protein sequence. This gene encodes defensin, beta 103A, which has broad spectrum antimicrobial activity and may play an important role in innate epithelial defense.

**Description:** Recombinant rat Beta Defensin-3 produced in E.Coli is a single, non-glycosylated polypeptide chain containing 41 amino acids and having a molecular mass of 4.5 kDa. The BD-3 is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli*

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** Lyophilized from a 0.2µm filtered solution in PBS, pH-7.4.  
The aliquots/samples of 1µg contain Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized rr BD-3 in sterile H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized rr BD-3 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rr BD-3 should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Purity:** Greater than 98.0% as determined by RP-HPLC and by SDS-PAGE.

**Amino Acid Sequence:** KKVYNAVSCM TNGGICWLKC SGTFREIGSC GTRQLKCKCK K.

**Biological Activity:** Measured by its antimicrobial activity against E. coli the ED<sub>50</sub> is typically 4 – 20 µg/ml, corresponding to a specific activity of 50,000 - 250,000 IU/mg.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	5 µg	Cat.N°	13344050
<i>medium</i>	20 µg	Cat.N°	13344054

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