

DATASHEET
Version 20181206**BD-1, Rat****Cat. No.:** Z02946-1**Size:** 1.0 mg**Synonyms:** Beta-defensin 1, BD-1, rBD-1, Defensin beta 1, Defb1.**Description:**

Defensins are 3-4 kDa antimicrobial peptides of which three distinct families have been identified; α -defensin, β -defensins, and insect defensins. Rat β -Defensin 1, as a member of the β -defensin family, is a salt-sensitive antimicrobial peptide present in epithelia of the lung and urogenital tract. The predicted amino acid sequence shows the hallmark features of other known epithelial β -defensins, including the ordered array of six cysteine residues.

Amino Acid Sequence:

00001 DQYRCLQNGG FCLRSSCP SH TKLQGTCKPD KPNCCRS

Source: *E. coli***Species:** Rat**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.**Molecular Weight:** Approximately 4.1 kDa, a single non-glycosylated polypeptide chain containing 37 amino acids.**Formulation:** Lyophilized from a 0.2 μ m filtered concentrated solution in 20 mM PBS, 500 mM NaCl, pH 7.0.**Appearance:** Sterile Filtered White lyophilized (freeze-dried) powder.**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.**Purity:** > 95 % by SDS-PAGE and HPLC analyses.**Endotoxin Level:** Less than 1 EU/ μ g of rRtBD-1 as determined by LAL method.**Storage:** This lyophilized preparation is stable 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.