

## 32-1070: rBD 4 Recombinant Protein

**Alternative Name :** Beta-defensin 4, BD-4, BD-2, Defensin, beta 4, RBD-2, RBD-4, Defb4, Defb2, Defb3.

### Description

Source : Escherichia Coli. BD-4 Rat Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 41 amino acids and having a molecular mass of 4.4kDa. The BD-4 is purified by proprietary chromatographic techniques. Defensins are cationic peptides with a large spectrum of antimicrobial activity that comprise an important arm of the innate immune system. The Alpha defensins are differentiated from the Beta-defensins by the pairing of their 3 disulfide bonds. 4 human Beta-defensins have been identified to date; 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.

### Product Info

<b>Amount :</b>	20 µg
<b>Purification :</b>	Greater than 97.0% as determined by SDS-PAGE.
<b>Content :</b>	BD-4 protein was lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
<b>Storage condition :</b>	Lyophilized BD-4 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution BD-4 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.
<b>Amino Acid :</b>	QSINNPITCL TGGVVCWGPC TGGFRQIGTC GLPRVRCCKK K.

### Application Note

It is recommended to reconstitute the lyophilized BD-4 in sterile 18M-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions. Measured by its antimicrobial activity against E. coli. The ED<sub>50</sub> for this effect is typically 5-50µg/ml.

