

## BD-4

Catalog # PVGS1162

### Product Information

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<b>Primary Accession Species</b>	<a href="#">O88514</a> Rat
<b>Sequence</b>	Gln23-Lys63
<b>Purity</b>	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
<b>Endotoxin Level Biological Activity</b>	Fully biologically active when compared to standard. The biologically active determined by a chemotaxis bioassay using human monocytes is in a concentration range of 0.1-100.0 ng/ml.
<b>Expression System</b>	E. coli
<b>Theoretical Molecular Weight</b>	4.4 kDa
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in 10 mM PB, pH 7.4, 500 mM NaCl.
<b>Reconstitution</b>	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml.
<b>Storage &amp; Stability</b>	Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

### Additional Information

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<b>Gene ID</b>	64389
<b>Other Names</b>	Beta-defensin 4, BD-4, BD-2, Defensin, beta 4, RBD-2, RBD-4, Defb4, Defb2, Defb3
<b>Target Background</b>	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 rat $\beta$ -defensins have been identified; BD-1, BD-2, BD-3 and BD-4. The $\beta$ -defensin proteins are expressed as the C-terminal portion of precursors and are released by proteolytic cleavage of a signal sequence. $\beta$ -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. BD-4 is expressed in testis,

stomach, uterus, neutrophils, thyroid, lung and kidney.

## Protein Information

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<b>Name</b>	Defb4
<b>Synonyms</b>	Defb2, Defb3
<b>Function</b>	Exhibits antimicrobial activity against Gram-negative bacteria and Gram-positive bacteria. May act as a ligand for C-C chemokine receptor CCR6. Binds to CCR6 and induces chemotactic activity of CCR6-expressing cells.
<b>Cellular Location</b>	Secreted.
<b>Tissue Location</b>	Highly expressed in lung.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.