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BD-4

Catalog # PVGS1162

Product Information

Primary Accession	O88514
Species	Rat
Sequence	Gln23-Lys63
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
Endotoxin Level	
Biological Activity	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.
Expression System	E. coli
Theoretical Molecular Weight	4.4 kDa
Formulation	Lyophilized from a 0.2 □m filtered solution in 10 mM PB, pH 7.4, 500 mM NaCl.
Reconstitution	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.
Storage & Stability	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

Gene ID	64389
Other Names	Beta-defensin 4, BD-4, BD-2, Defensin, beta 4, RBD-2, RBD-4, Defb4, Defb2, Defb3
Target Background	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 α-defensins are distinguished from the β-defensins by the pairing of their three disulfide bonds. To date, four rat β-defensins have been identified; BD-1, BD-2, BD-3 and BD-4. The β-defensin proteins are expressed as the C-terminal portion of precursors and are released by proteolytic cleavage of a signal sequence. β-defensins contain a six-cysteine motif that forms three intra-molecular disulfide bonds. β-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

Name	Defb4
Synonyms	Defb2, Defb3
Function	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.
Cellular Location	Secreted.
Tissue Location	Highly expressed in lung.