10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

BD-1

Catalog # PVGS1132

Product Information

Primary Accession	O89117
Species	Rat
Sequence	Asp33-Ser69
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
Endotoxin Level	
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.
Expression System	E. coli
Theoretical Molecular Weight	4.1 kDa
Formulation	Lyophilized from a 0.2 □m filtered solution in 20 mM PBS, 500 mM NaCl, pH 7.0.
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	83687
Other Names	Beta-defensin 1, BD-1, rBD-1, Defensin, beta 1, Defb1
Target Background	Defensin 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.

Protein Information

Name	Defb1
Function	Has bactericidal activity. May act as a ligand for C-C chemokine receptor CCR6. Positively regulates the sperm motility and bactericidal activity in a CCR6-dependent manner. Binds to CCR6 and triggers Ca2+ mobilization in the sperm which is important for its motility.
Cellular Location	Secreted {ECO:0000250|UniProtKB:P60022}. Membrane {ECO:0000250|UniProtKB:P60022}. Note=Associates with tumor cell membrane-derived microvesicles. {ECO:0000250|UniProtKB:P60022}
Tissue Location	Highly expressed in kidney.