

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 Im 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.

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