

BD-3

Catalog # PVGS1074

Product Information

Primary Accession P81534
Species Human

Sequence Gly23-Lys67

Purity > 98% as analyzed by SDS-PAGE

> 98% as analyzed by HPLC

Endotoxin Level

Biological Activity Fully biologically active when compared to standard. The ED₅₀ as determined

by anti-microbial activity against E.coli is less than 30.0 [g/ml, corresponding

to a specific activity of > 33.3 IU/mg.

Expression System E. coli

Theoretical Molecular Weight 5.2 kDa

Formulation Lyophilized from a 0.2 Im filtered solution in 20 mM PBS, pH 7.4, 130 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 414325;55894

Other Names Beta-defensin 103, Beta-defensin 3, BD-3, DEFB-3, HBD3, hBD-3, Defensin,

beta 103, Defensin-like protein, DEFB103A, BD3, DEFB103, 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 human β -defensins have been identified; BD-1, BD-2, BD-3 and BD-4. β -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 β -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. 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.

Protein Information

Name DEFB103A

Synonyms BD3, DEFB103, DEFB3

Function Exhibits antimicrobial activity against Gram-positive bacteria S.aureus and

S.pyogenes, Gram-negative bacteria P.aeruginosa and E.coli and the yeast C.albicans. Kills multiresistant S.aureus and vancomycin-resistant E.faecium.

No significant hemolytic activity was observed.

Cellular Location Secreted.

Tissue Location Highly expressed in skin and tonsils, and to a lesser extent in trachea, uterus,

kidney, thymus, adenoid, pharynx and tongue. Low expression in salivary gland, bone marrow, colon, stomach, polyp and larynx. No expression in

small intestine

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