

BD-3
Catalog # PVGS1133**Specification**

BD-3 - Product Information

Primary Accession [Q9WTL0](#)
Species
Mouse

Sequence
Lys23-Lys63

Purity
> 95% as analyzed by SDS-PAGE
> 95% as analyzed by HPLC

Endotoxin Level
< 1 EU/ µg of protein by LAL method

Biological Activity
Fully biologically active when compared to standard. The ED₅₀ as determined by anti-microbial activity against E.coli is less than 20.0 µg/ml, corresponding to a specific activity of > 50.0 IU/mg.

Expression System
E. coli

Theoretical Molecular Weight
4.6 kDa

Formulation **Lyophilized from a 0.2 µm filtered solution in 2 × PBS, pH 7.4.**

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.

BD-3 - Additional Information

Gene ID 27358

Other Names
Beta-defensin 3, BD-3, mBD-3, Defensin, beta 3, Defb3, Bd3

Target Background

Beta defensin-3, also known as BD-3 and DEFB-3, is a membrane active cationic peptide that functions in inflammation and innate immune responses and coded by Defb 3 gene on chromosome 8 in mouse. There are at least 30 β -defensins which are distinguished from α -defensins by the connectivity pattern of their three intramolecular disulfide bonds. BD3 is widely expressed among epithelial tissues, notably by keratinocytes and airway epithelial cells. It is upregulated in response to proinflammatory cytokines, microbial and viral infections, and at the edges of skin wounds. BD3 induction in osteoarthritis chondrocytes promotes MMP1 and 13 productions and inhibits TIMP1 and 2 expressions.

BD-3 - Protein Information

Name Defb3

Synonyms Bd3

Function

Antimicrobial activity against Gram-negative bacteria E.coli and P.aeruginosa.

Cellular Location

Secreted.

Tissue Location

Highest expression in salivary glands, epididymis, ovary and pancreas and to a lesser extent in lung, liver and brain. Low or no expression in skeletal muscle and tongue

BD-3 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

BD-3 - Images