

Rev03
Update: Dec,14,2021

DATASHEET

BD-3, Rat

Cat. No.: Z02947

Product Introduction

Species	Rat
Protein Construction	BD-3 (Lys23-Lys63) Accession # Q32Z14
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. Measured by its antimicrobial activity against E. coli. The ED ₅₀ for this effect is typically 4.0-20.0 μg/ml.
Expression System	E. coli
Theoretical Molecular Weight	4.5 kDa
Formulation	Lyophilized from a 0.2 μm filtered solution in 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.

Background

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.

Synonyms : Beta-defensin 3; rBD-3; Defensin, beta 3; Defb3; BD3

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.