

Rev03
Update: Dec,14,2021

DATASHEET

BD-4, Rat

Cat. No.: Z02948

Product Introduction

Species	Rat
Protein Construction	BD-4 (Gln23-Lys63) Accession # O88514
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
Endotoxin Level	< 1 EU/ μ g of protein by LAL method
Biological Activity	Fully biologically active when compared to standard. The biologically active determined by a chemotaxis bioassay using human monocytes is in a concentration range of 0.1-100.0 ng/ml.
Expression System	E. coli
Theoretical Molecular Weight	4.4 kDa
Formulation	Lyophilized from a 0.2 μ m filtered solution in 10 mM PB, pH 7.4, 500 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.

Background

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 rat β -defensins have been identified; BD-1, BD-2, BD-3 and BD-4. The β -defensin proteins are expressed as the C-terminal portion of precursors and are released by proteolytic cleavage of a signal sequence. 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. BD-4 is expressed in testis, stomach, uterus, neutrophils, thyroid, lung and kidney.

Synonyms : Beta-defensin 4; BD-2; Defensin, beta 4; RBD-2; RBD-4; Defb4

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