
Product Data Sheet

Product Name: BD 1 Rat
Cat. No.: GP20075
Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Beta-defensin 1; BD-1; rBD-1; Defensin beta 1; Defb1.		
Amino Acid Sequence	DQYRCLQNGG FCLRSSCP SH TKLQGTCKPD KPNCCRS.		
Solubility	It is recommended to reconstitute the lyophilized BD-1 in sterile 18M-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	BD-1 protein was lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.		

Introduction

The Defensin family are highly similar in their protein sequence and are microbicidal & cytotoxic peptides made by neutrophils. Beta Defensin-1 is an antimicrobial peptide having the resistance of epithelial surfaces to microbial colonization. Beta Defensin-1 has close proximity to Defensin Alpha-1 and has been implicated in the pathogenesis of cystic fibrosis. Skin of patients having atopic dermatitis patients and mycosis fungoides (non-lesional and lesional) show lower human Beta Defensin-1 mRNA expression and higher human Beta Defensin-2 and human Beta Defensin-3 mRNA expression. Beta Defensin is highly expressed by epithelial cells. Beta-defensin 1 may play a role in the pathogenesis of severe sepsis.

Biological Activity

Measured by its ability to chemoattract CD34+ dendritic cells using a concentration range of 0.1-1.0 ug/ml.

Stability

Caution: Product has not been fully validated for medical applications. For research use only.

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Lyophilized BD-1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution BD-1 should be stored at 4°C between 2-7 days and for future use below -18°C . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Background

BD-1 Rat Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 37 amino acids and having a molecular mass of 4.1kDa. The BD-1 is purified by proprietary chromatographic techniques.

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