9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
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BD 4 Rat

BD 4 Rat
CYK0076

Product Overview

Name	BD 4 Rat
Description	
BD 4 Rat	
Accession (Primary)	O88514
Synonyms	
Beta-defensin 4, BD-4, BD-2, Defensin, beta 4, RBD-2, RBD-4, Defb4, Defb2, Defb3.	
Introduction	
Defensins are cationic peptides with a large spectrum of antimicrobial activity that comprise an important arm of the innate immune system. The Alpha defensins are differentiated from the Beta-defensins by the pairing of their 3 disulfide bonds. 4 human Beta-defensins have been identified to date; BD-1, BD-2, BD-3 and BD-4. Beta-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 beta-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. Beta-defensins contain a six-cysteine motif that forms three intra-molecular disulfide bonds. Beta-Defensins are 3-5 kDa peptides ranging in size from 33-47 amino acid residues.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
BD-4 protein was lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.	
Stability	
Lyophilized BD-4 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution BD-4 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.	
Purity	
Greater than 97.0% as determined by SDS-PAGE.	
Amino acid sequence	

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QSINNPITCL TKGGVCWGPC TGGFRQIGTC GLPRVRCCKK K.

Biological Activity

Measured by its antimicrobial activity against E. coli. The ED50 for this effect is typically 5-50 µg/ml.

Solubility

It is recommended to reconstitute the lyophilized BD-4 in sterile 18M-cm H 2 O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Precautions

BD 4 Rat is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (O88514)