9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

BD 2 Human

Beta Defensin-2 Human Recombinant
CYK0070

Product Overview

Name	BD 2 Human
Description	
Beta Defensin-2 Human Recombinant	
Accession (Primary)	O15263
Synonyms	
BD-2, hBD-2, Defensin beta 2, Skin-antimicrobial peptide 1, SAP1, DEFB4, DEFB102, DEFB2, DEFB4P, Beta-defensin 2.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
The Human BD-2 was lyophilized from a 0.2 µm filtered concentrated (1mg/ml) solution containing 20mM PB pH-7.4 and 130mM NaCl.	
Stability	
Lyophilized Beta Defensin-2 Recombinant although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution BD-2 should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.	
Purity	
Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.	
Amino acid sequence	
GIGDPVTCLK SGAICHPVFC PRRYKQIGTC GLPGTKCCKK P.	
Biological Activity	
Determined by the ability to chemoattract human dendritic immature cells at a concentration of 10-100ng/ml.	
Solubility	
It is recommended to reconstitute the lyophilized Beta Defensin-2 in sterile 18MΩ-cm H2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.	
Background	

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Beta Defensin-2 Human Recombinant: Unveiling its Role in Innate Immunity and Therapeutic Potential Abstract: Beta Defensin-2 (BD-2), a member of the defensin family, plays a crucial role in innate immunity and host defense. This research paper provides an overview of BD-2 human recombinant, exploring its molecular characteristics, antimicrobial properties, and therapeutic applications. Understanding the multifaceted role of BD-2 offers new avenues for developing innovative immunotherapies. This article offers a concise analysis of BD-2, highlighting its impact on innate immunity and its therapeutic potential. Introduction: Innate immunity serves as the first line of defense against invading pathogens. BD-2, a key antimicrobial peptide within the defensin family, plays a vital role in immune responses at epithelial surfaces. This paper provides an overview of BD-2, shedding light on its structure, function, and therapeutic potential. BD-2 Structure and Function: BD-2 is a cationic peptide that exhibits a conserved cysteine motif, conferring its antimicrobial activity. It acts by disrupting microbial cell membranes, exerting a broad spectrum of antimicrobial effects against bacteria, fungi, and viruses. Additionally, BD-2 possesses immunomodulatory properties, regulating inflammatory responses and promoting wound healing. Antimicrobial Properties and Therapeutic Applications: BD-2 demonstrates potent antimicrobial activity against a wide range of pathogens, including drug-resistant strains. Its ability to combat biofilm formation and enhance immune cell recruitment makes it a promising candidate for developing novel antimicrobial therapies. Furthermore, BD-2's immunomodulatory effects hold potential in treating inflammatory disorders. Therapeutic Potential of BD-2 Human Recombinant: BD-2 human recombinant offers exciting prospects in immunotherapy. Strategies aimed at enhancing BD-2 expression or delivering exogenous BD-2 may boost innate immune responses in individuals with compromised immunity or chronic infections. BD-2-based therapeutics could be developed for wound healing, infectious diseases, and inflammatory conditions. Challenges and Future Directions: While BD-2 shows great promise, challenges remain. Further research is needed to optimize delivery methods of BD-2 and evaluate its safety and efficacy in clinical settings. Understanding the interplay between BD-2 and other immune factors will enable the development of synergistic therapies for enhanced therapeutic outcomes. Conclusion: BD-2 human recombinant represents a promising avenue for developing novel immunotherapies and combating antimicrobial resistance. Understanding the molecular mechanisms and functional implications of BD-2 in innate immunity opens new horizons for innovative treatments. Continued research in this field has the potential to revolutionize immunotherapy and improve patient outcomes.

Precautions

BD 2 Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (O15263)

Background

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