



Product Datasheet

Product Name	Beta Defensin-2 Human Recombinant
Cata No	CB501305
Source	<i>Escherichia Coli.</i>
Synonyms	BD-2, hBD-2, Defensin beta 2, Skin-antimicrobial peptide 1, SAP1, DEFB4, DEFB102, DEFB2, DEFB4P, Beta-defensin 2.

Description

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. BBeta Defensin is highly expressed by epithelial cells.

Beta-defensin 1 may play a role in the pathogenesis of severe sepsis.

Variation in human Beta Defensin-1 contributes to asthma diagnosis, with apparent gender-specific effects. Human Beta Defensin-3 is a dimer, while Human BD-1 and Human BD-2 are monomeric. The expression of Human BD1 is correlated with induction profiles in gingival keratinocytes.

The level of expression of human DEFB1 mRNA is lower than that of human BD3 and human BD-2 in reconstructed epidermis.

Human BD1 is down-regulated in human prostatic and renal carcinomas.

Beta Defensin-2 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 41 amino acids and having a molecular mass of 4.3 kDa.

The BD-2 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Biological Activity

Determined by the ability to chemoattract human dendritic immature cells at a concentration of 10µg/ml-100ug/ml.

Purity

Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Formulation

The Human BD-2 was lyophilized from a concentrated (1mg/ml) solution containing 20mM PBS pH-7.4 and 130mM sodium chloride.

Reconstitution

It is recommended to reconstitute the lyophilized Beta Defensin-2 in sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

*** For Non-Clinical Research Use Only ***



California Bioscience

83103 Avenue 48, Ste.1B #204
Coachella, CA 92236 USA
Phone : +1.6268339877
Email : info@cali-bio.com

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

Product Datasheet

for future use below -18°C.

Sequence

GIGDPVTCLK SGAICHPVFC PRRYKQIGTC
GLPGTKCCKK P

*** For Non-Clinical Research Use Only ***