

TECHNICAL DATA SHEET

## Recombinant Human BD-1 (47 a.a.) (Carrier-Free)

Catalog Number: 21-9163

### RPx-Pro™ Recombinant Protein

#### PRODUCT INFORMATION

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Recombinant Human BD-1 (47 a.a.) (Carrier-Free)

#### DESCRIPTION

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 alpha-defensins are distinguished from the beta-defensins by the pairing of their three disulfide bonds. To date, six human beta-defensins have been identified; BD-1, BD-2, BD-3, BD-4, BD-5 and BD-6. beta-defensins are expressed on some leukocytes and at epithelial surfaces.

#### MOLECULAR MASS

Recombinant Human BD-1 is a 5.0 kDa protein containing 47 amino acid residues.

#### AMINO ACID SEQUENCE

GNFLTGLGHR SDHYNCVSSG GQCLYSACPI FTKIQGTCYR GKAKCCK

#### SOURCE

HEK293 cells

#### APPLICATIONS

Bioassay

#### PURITY

98 %

#### STORAGE

-20°C

#### PROTEIN CONTENT

Content Verified by UV Spectroscopy and/or SDS-PAGE gel.

#### ENDOTOXIN LEVEL

Endotoxin level is <0.1 ng/μg of protein (<1EU/μg).

#### AUTHENTICITY

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

#### CROSS REACTIVITY

Human

#### BIOACTIVITY

Determined by its ability to chemoattract CD34+ dendritic cells using a concentration range of 100.0-1000.0 ng/ml.

#### RESEARCH AREAS

Immune System, Chemotaxis

#### RECONSTITUTION

See Certificate of Analysis (COA) for lot specific reconstitution information.

#### REFERENCES

Schibli, D.J. The solution structures of the human beta-defensins lead to a better understanding of the potent bactericidal activity of HBD3 against *Staphylococcus aureus*. 2002. *The Journal of Biological Chemistry*; 277(10):8279-8289. Wilson, C.L. Differential Processing of {alpha}- and {beta}-Defensin Precursors by Matrix Metalloproteinase-7 (MMP-7). 2009. *The Journal of Biological Chemistry*; 284(13):8301-11.

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