TECHNICAL DATA SHEET

Recombinant Human BD-4 (Carrier-Free)

Catalog Number: 21-9174

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

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Recombinant Human BD-4 (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 α-defensins are distinguished from the β-defensins by the pairing of their three disulfide bonds. To date, six human β-defensins have been identified; BD-1, BD-2, BD-3, BD-4, BD-5 and BD-6. β-defensins are expressed on some leukocytes and at epithelial surfaces. In addition to their direct antimicrobial activities, they can act as chemoattractants towards immature dendritic cells and memory T cells. The β-defensin proteins are expressed as the C-terminal portion of precursors, and are released by proteolytic cleavage of a signal sequence and, in some cases, a propeptide sequence. β-defensins contain a six-cysteine motif that forms three intra-molecular disulfide bonds. BD-4 is expressed in the testes, stomach, uterus, neutrophils, thyroid, lungs and kidneys. In addition to its direct antimicrobial activities, BD-4 is chemoattractant towards human blood monocytes.

MOLECULAR MASS

Recombinant Human BD-4 is a 6.0 kDa protein containing 50 amino acid residues.

AMINO ACID SEQUENCE

EFELDRICGY GTARCRKKCR SQEYRIGRCP NTYACCLRKW DESLLNRTKP

SOURCE	APPLICATIONS	PURITY	STORAGE
E. coli	Bioassay	98 %	-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

N/A

BIOACTIVITY

Determined by its ability to chemoattract human monocytes using a concentration range of 0.1-100.0 ng/ml.

RESEARCH AREAS

Immune System, Chemotaxis

RECONSTITUTION

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

REFERENCES

Medina-Inojosa J, Somers V, Jenkins S, Zundel J, Johnson L, Grimes C, Lopez-Jimenez F. Obes Open Access. 2017;3(1). doi: 10.16966/2380-5528.127.
Abdul-Malak O, Vodovotz Y, Zaaqoq A, Guardado J, Almahmoud K, Yin J, Zuckerbraun B, Peitzman AB, Sperry J, Billiar TR, Namas RA. Mediators Inflamm. 2016;2016:7950374.