

BD-4 Human E. coli

Product Data Sheet

Type: Recombinant	Cat. No.:	
Source: E. coli	RBG10078005	(5 µg)
Species: Human	RBG10078020	(20 µg)
Other names: Beta-defensin 104, BEFB4	RBG10078100	(100 µg)

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. In addition to their direct antimicrobial activities, they can act as chemoattractants 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 some cases, a propeptide sequence. beta-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. Recombinant Human BD-4 is a 6.0 kDa protein containing 50 amino acid residues.

Research topic

Immune Response, Infection and Inflammation

Amino Acid Sequence

EFELDRICGY GTARCRKKCR SQEYRIGRCP NTYACCLRKW DESLLNRTKP

Source

E. coli

Purity

98%

Biological Activity

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

Endotoxin

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

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in 10mM Acetic Acid to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C

Storage, Stability/Shelf Life

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