



BD-1 Recombinant Protein

CATALOG NUMBER: 40-133

Specifications

SPECIES:	Human
SOURCE SPECIES:	E. coli
SEQUENCE:	GNFLTGLGHR SDHYNCVSSG GQCLYSACPI FTKIQGTCYR GKAKCCK
TESTED APPLICATIONS:	
BIOLOGICAL ACTIVITY:	Determined by its ability to chemoattract CD34+ dendritic cells using a concentration range of 100.0 - 1000.0 ng/mL.

Properties

PURITY:	Greater than 98% by SDS-PAGE gel and HPLC analyses. Endotoxin level is less than 0.1 ng per ug (1EU/ug).
PHYSICAL STATE:	Lyophilized
STORAGE CONDITIONS:	The lyophilized BD-1 recombinant protein is stable for at least 2 years from date of receipt at -20°C. Reconstituted BD-1 is stable for at least 3 months when stored in working aliquots with a carrier protein at -20°C. As with any protein, exposing BD-1 recombinant protein to repeated freeze / thaw cycles is not recommended. When working with proteins care should be taken to keep recombinant protein at a cool and stable temperature.

Additional Info

ALTERNATE NAMES:	BD1, HBD1, DEFB-1, DEFB101, BD1, Beta-defensin 1, Defensin, beta 1, BD-1
ACCESSION NO.:	NP_005209.1
PROTEIN GI NO.:	4885181

Background

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, four human β -defensins have been identified; BD-1, BD-2, BD-3 and BD-4. β -defensins are expressed on some leukocytes and at epithelial surfaces. In addition to their direct antimicrobial activities, they are chemoattractant 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 the case of BD-1 (36 a.a.), a propeptide region. β -defensins contain a six-cysteine motif that forms three intra-molecular disulfide bonds. β -Defensins are 3-5 kDa peptides ranging in size from 33-47 amino acid residues. Recombinant Human BD-1 is a 5.0 kDa protein containing 47 amino acid residues.

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