

Recombinant Human Beta-defensin 1, 47aa (Human BD-1,47aa)

Product Information

Product Name	Cat#	Size
	92501ES08	5 µg
Recombinant Human Beta-defensin 1, 47aa (Human BD-1,47aa)	92501ES60	100 µg
	92501ES76	500 µg

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

Product Properties

Synonyms	BD1 Protein, DEFB-1 Protein, DEFB101 Protein, BD1 Protein
Accession	P60022
GeneID	1672
Source	E.coli-derived human Beta-defensin 1, 47aa protein,Gly22-Lys68
Molecular Weight	Approximately 5.1 kDa.
AA Sequence	GNFLTGLGHR SDHYNCVSSG GQCLYSACPI FTKIQGTCYR GKAKCCK
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 98 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using CD34 ⁺ dendritic cells is in a concentration range of 100.0-1000.0 ng/ml.
Endotoxin	< 1.0 EU per 1µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4, 130 mM NaCl. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
Reconstitution	Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!