

BD-4 Protein, Human

Cat. No.:	HY-P7140
Synonyms:	rHuBD-4; DEFB-4; Beta-defensin 104; DEFB4; DEFB104
Species:	Human
Source:	E. coli
Accession:	Q8WTQ1 (E23-P72)
Gene ID:	140596
Molecular Weight:	Approximately 5-11 kDa

PROPERTIES

AA Sequence	E F E L D R I C G Y G T A R C R K K C R S Q E Y R I G R C P N T Y A C C L R K W D E S L L N R T K P
Biological Activity	Full biological activity determined by a chemotaxis bioassay using human monocytes is in a concentration range of 0.1-100 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM PBS, pH 7.4, 130 mM NaCl or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Human Beta Defensin-4 (hBD-4) expression is up-regulated by infection with gram-positive and gram-negative bacteria in human respiratory epithelial cells, and in response to phorbol 12-myristate 13-acetate, but not in response to other inflammatory factors that up-regulate the expression of hBD-2 or hBD-3. Synthetic hBD-4 exhibits a selective, salt-sensitive spectrum of antimicrobial activity, and it represents one of the most active antimicrobial peptides against <i>Pseudomonas aeruginosa</i> (minimal inhibitory concentration: 4.1 µg/mL) known to date ^[1] .
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REFERENCES

[1]. García JR, et al. Human beta-defensin 4: a novel inducible peptide with a specific salt-sensitive spectrum of antimicrobial activity. FASEB J. 2001 Aug;15(10):1819-21.

Caution: Product has not been fully validated for medical applications. For research use only.

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