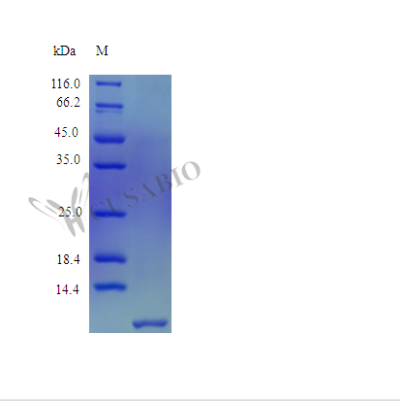
Recombinant Human Beta-defensin 104 protein (DEFB104A) (Active)

Product Code	CSB-AP003061HU
Abbreviation	Recombinant Human DEFB104A protein (Active)
Uniprot No.	Q8WTQ1
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 μm filtered 20 mM PB, pH 7.4, 130 mM NaCl
Product Type	Other
Immunogen Species	Homo sapiens (Human)
Biological Activity	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human monocytes is in a concentration range of 0.1-100.0 ng/ml.
Purity	>98% as determined by SDS-PAGE.
Sequence	EFELDRICGY GTARCRKKCR SQEYRIGRCP NTYACCLRKW DESLLNRTKP
Research Area	Microbiology
Source	E.coli
Target Names	DEFB104A
Expression Region	23-72aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag-Free
Mol. Weight	6.0 kDa
Protein Length	Full Length of Mature Protein
PubMed ID	11481241; 15489334
Image	

Description

Our Recombinant Human DEFB104A protein is an invaluable resource for researchers in the field of microbiology. This Beta-defensin 104, also known as DEFB104A, is expressed in E. coli, featuring the 23-72aa expression region of the full-length mature protein. The tag-free protein is supplied as a lyophilized powder, making it easy to reconstitute with sterile water or buffer for various experimental applications.

Quality and performance are our top priorities, and our Recombinant Human DEFB104A protein demonstrates a purity of >98% as determined by SDS-PAGE and HPLC analysis. In addition, endotoxin levels are maintained below 1.0 EU/μg, as assessed by the LAL method. The protein exhibits full biological activity in a chemotaxis bioassay using human monocytes, with an effective concentration range of 0.1-100.0 ng/ml.

As an antimicrobial peptide, DEFB104A has attracted significant attention in recent years. Studies by Weinberg *et al*. (2012)[1] and Prado-Montes de Oca (2011)[2] have highlighted its role in the innate immune response, while Cullen *et al*. (2021)[3] explored its antibacterial properties against a range of pathogens. These investigations underscore the importance of DEFB104A as a potential therapeutic target in combating infectious diseases.

References:
1. Weinberg A, *et al*. Defensin genes and the genetics of human host defense. Annu Rev Genet. 2012;46:23-47.
2. Prado-Montes de Oca E. Human defensins: a novel approach for the treatment of skin diseases. Curr Opin Investig Drugs. 2011;12(11):1223-30.
3. Cullen TW, *et al*. Antibacterial properties of human defensins: New insights into their potential therapeutic applications. J Leukoc Biol. 2021;110(1):25-39.

Endotoxin	Less than 1.0 EU/μg as determined by LAL method.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.