Recombinant CAMP protein (His tag)

Catalog Number	544658
Synonyms	18 kDa cationic antimicrobial protein; CAP-18; hCAP-18; FALL-39 peptide antibiotic
Species	Human
Expression System	E. coli
Accession	P49913
Molecular Weight	Predictes a molecular mass of 20.96 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band.

Product Information

Sequence Region	1-170
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-170 aa (P49913) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Cathelicidin Antimicrobial Peptide (CAP-18/hCAP-18) Fragment (residues 1-170) is a high-purity, stable protein fragment ideal for studying innate immunity and antimicrobial mechanisms. This 170-amino acid fragment retains key functional properties of the full-length protein, providing a reliable tool for structural, biochemical, and functional research on host defense peptides. Cathelicidin antimicrobial peptide (CAP-18/hCAP-18), encoded by the CAMP gene in Homo sapiens, is an essential component of the innate immune system. The full-length protein is stored as a pro-peptide in neutrophil granules and phagolysosomes and is secreted in sweat onto the skin, where postsecretory processing generates multiple antimicrobial peptides (e.g., LL-37, FALL-39). It binds bacterial lipopolysaccharides (LPS), exhibits broad-spectrum antimicrobial activity against Gram-negative and Gram-positive bacteria (including E. coli, S. aureus, and vancomycin-resistant enterococci), and can induce cytokine production in keratinocytes. The unprocessed precursor also inhibits bacterial growth, while derived peptides like LL-37 form transmembrane pores for membrane permeabilization and may interfere with bacterial quorum signaling. This recombinant fragment (residues 1-170) represents a stable, soluble unit for investigating these critical immune functions.