Recombinant KLK7 protein (His tag)

Catalog Number	540002
Synonyms	hK7; Serine protease 6; Stratum corneum chymotryptic enzyme; hSCCE
Species	Human
Expression System	E. coli
Accession	P49862
Molecular Weight	Predictes a molecular mass of 25.99 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	31-253
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 31-253 aa (P49862) 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 Kallikrein-7 (hK7) Fragment (residues 31-253) is a high-quality protein product designed for structural and biochemical research. This 223-amino acid fragment represents a stable, soluble unit of the serine protease, preserving key functional characteristics while offering enhanced experimental utility for studies in skin biology and protease function. Kallikrein-7 (hK7), also known as stratum corneum chymotryptic enzyme, is a serine protease that plays a crucial role in skin desquamation by catalyzing the degradation of intercellular cohesive structures in the cornified layer, facilitating continuous shedding of skin cells. The enzyme demonstrates specificity for amino acid residues with aromatic side chains in the P1 position, cleaving insulin chains at multiple sites including Tyr-Gln, Leu-Cys, Tyr-Leu, Phe-Tyr, and Tyr-Thr. Additionally, hK7 may contribute to inflammatory processes through potential activation of cytokine precursors. The protein is naturally secreted and, in ovarian carcinoma, has been observed at the apical membrane and in cytoplasm at the invasive front, suggesting additional roles in disease pathology. This recombinant fragment provides researchers with a reliable tool to investigate these important biological functions.