

Active Recombinant Human Kallikrein-Related Peptidase 7

Cat. No. KLK7-1359H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	KLK7 Human Recombinant produced in HEK-293 cells is a single, glycosylated, polypeptide chain containing 231 amino acids with a molecular weight of 30 kDa. The KLK7 is purified by proprietary chromatographic techniques.
Species	Human
Source	Human
Description	KLK7 catalyzes the degradation of intercellular cohesive structures in the cornified layer of the skin in the continuous shedding of cells from the skin surface. Specific for amino acid residues with aromatic side chains in the P1 position. KLK7 cleaves insulin B chain at "6-Leu- -Cys-7", "16-Tyr- -Leu-17", "25-Phe- -Tyr-26" and "26-Tyr--Thr-27". KLK7 is involved in the activation of precursors to inflammatory cytokines.
Form	The KLK7 protein was lyophilized from a 0.2µm filtered solution containing no additives or preservatives.
Purity	Greater than 95.0% as determined by SDS-PAGE.
Bio-activity	Recombinant Human KLK7 specific activity is greater than 300pmoles/min/µg when measure with 10uM fluorogenic peptide substrate (Mca-Arg-Pro-Lys-Pro-Val-Glu-Nva I-Trp-Arg-Lys(Dnp)-NH ₂) and 200ng of activated enzyme. The reaction is carried out i n a volume of 100µL containing 50mM Tris, 150mM NaCl, pH8.5 at 37°C. Cleavage o f the peptide substrate can be monitored using excitation and emission wavelengths o f 320nm and 405nm, respectively.

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Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Solubility	It is recommended to reconstitute the lyophilized KLK7 in sterile 18M μ -cm H ₂ O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
Amino acid sequence	EEAQGDKIID GAPCARGSHP WQVALLSGNQ LHCGGVLVNE RWVLTAAHCK MNEYTVHLGS DTLGDRRAQR IKASKSFRHP GYSTQTHVND LMLVKLNSQA RLSSMVKKVR LPSRCEPPGT TCTVSGWGTT TSPDVTFPSD LMCVDVKLIS PQDCTKVYKD LLENSMLCAG IPDSKKNACN GDSGGPLVCR GTLQGLVSWG TFPCGQPNDP GVYTQVCKFT KWINDTMKKH R.
Storage	Lyophilized KLK7 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution KLK7 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
GENE INFORMATION	
Gene Name	KLK7 kallikrein-related peptidase 7 [Homo sapiens]
Official Symbol	KLK7
Synonyms	KLK7; kallikrein-related peptidase 7; SCCE; PRSS6; kallikrein-7; hK7; Hscce; signal protein; serine protease 6; protease, serine, 6; stratum corneum chymotryptic enzyme; kallikrein 7 (chymotryptic, stratum corneum); EC 3.4.21.117
Gene ID	5650
mRNA Refseq	NM_005046
Protein Refseq	NP_005037

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MIM	604438
UniProt ID	P49862
Chromosome Location	19q13.41
Function	peptidase activity; serine-type endopeptidase activity; serine-type peptidase activity
HumanKallikrein 7 in complex with Ala-Ala-Phe-Chloromethylketone. Rendered fromPDB	