

Active Recombinant Human KLK1 Protein (262 aa), C-6×His-tagged

Cat. No. KLK1-089K **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human KLK1 Protein with C-6×His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	262
Description	Kallikreins are members of a highly conserved serine proteases that are involved in the post-translational modification of many polypeptides, and plays a role in diverse physiological processes. Fifteen kallikreins who seen coding genes are located in a cluster on chromosome 19 have been reported, and growing evidence suggests that many kallikreins are implicated in carcinogens is and some have potential as novel cancer and other disease biomarkers. Human kallikrein1(KLK1), also known as tissue kallikrein, is functionally conserved in its capacity to cleave the low molecular weight kininogen to release the vasoactive peptide, Lys-bradykinin which plays a role in regulating vasodilation, blood pressure reduction, smooth muscle relaxation and contraction, pain induction and inflammation.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	Measured by its ability to cleave a flourogenic peptide substrate Pro-Phe-Arg-7-amid o-4-methylcoumarin (PFRAMC). The specific activity is > 2,000 pmoles/min/μg.

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Molecular Mass	Approximately 29.7 kDa, a single non-glycosylated polypeptide chain containing 262 amino acids with 6 × His at C-terminus.
AA Sequence	MWFLVLCLALSLGGTGAAPPIQSRIVGGWECEQHSQPWQAALYHFSTFQCGGILVH RQWVLTAAHCISDNYQLWLGRHNLFDDETAQFVHVSESFPHPGFNMSLLENHTR QADEDYSHDLMLRLTEPADTITDAVKVVELPTEEPVGGSTCLASGWGSIEPENFSF PDDLQCVDLKILPNDECKKAHVQKVTDFMLCVGHLEGGKDTCVGDSGGPLMCDGV LQGVTSWGYVPCGTPNKPSVAVRVLSYVKWIEDTIAENSHHHHHH
Endotoxin	Less than 1 EU/mg of rHuKLK-1 as determined by LAL method.
Purity	>90% by SDS-PAGE and HPLC analyses.
Storage	This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 to -70 centigrade. Avoid repeated freeze/thaw cycles.
Storage Buffer	Lyophilized from a 0.2mm filtered concentrated solution in PBS, pH 7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at < -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name [KLK1 kallikrein 1 \[Homo sapiens \]](#)

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Official Symbol	KLK1
Synonyms	KLK1; kallikrein 1; kallikrein 1, renal/pancreas/salivary; kallikrein-1; Klk6; tissue kallikrein; glandular kallikrein 1; kallikrein serine protease 1; kidney/pancreas/salivary gland kallikrein; hK1; KLKR;
Gene ID	3816
mRNA Refseq	NM_002257
Protein Refseq	NP_002248
MIM	147910
UniProt ID	P06870

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