Recombinant Human Kallikrein 1

Cat. No. KLK1-38H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human KLK1 produced in Yeast is a single, glycosylated, polypeptide chain containing 238 amino acids and having a molecular mass of 28-32 kDa. KLK1 Human Recombinant is purified by proprietary chromatographic techniques.
Species	Human
Source	P.pastoris
Description	KLK1 is one of the fifteen kallikrein subfamily members located in a cluster on chromosome 19. KLK1 is functionally conserved in its ability to release the vasoactive peptide, Lys-bradykinin, from low molecular weight kininogen. Human Kallikrein-1, also called as Kallidinogenase, Kininogenase or Kininogenin, is an active protein enzyme present in saliva, pancreatic juices, and urine that catalyzes the proteolysis of bradykininogen to bradykinin. Kallikrein-1, which derived from human or porcine, have been used as drugs for a long time, they are mainly used in the treatment f light to medium hypertension and occlusion of cerebral and surrounding blood vessels. KLK1 demonstrates both trypsin- and chymotrypsin-like selectivities with Tyr/Arg preferred at site P1, Ser/Arg strongly preferred at P1", and Phe/Leu at P2.
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Ile-Val-Gly-Gly-Trp-Glu.
Physical Appearance	Sterile Filtered clear solution.
Purity	Greater than 98.0% as determined by both: (a) Analysis by RP-HPLC. (b) Analysis by

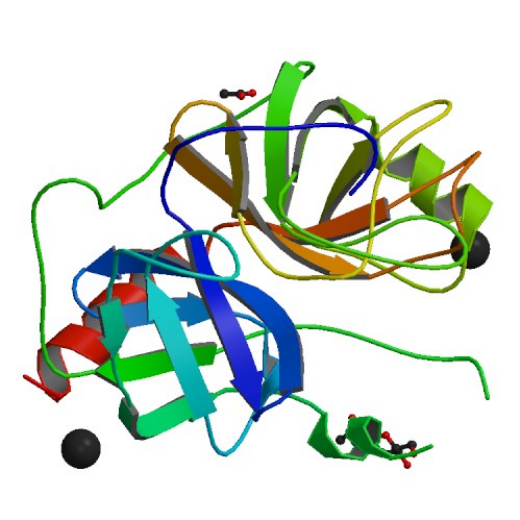
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	SDS-PAGE.
Formulation	The protein solution contains 1X PBS.
Biological Activity	Human Kallikrein-1 active Unit Definitin: 1 unit will hydrolize 1 μmole of H-D-Val-Leu-Arg-pNA(S-2266) per minute at pH 8.0 at 37°C Human Kallikrein-1 measured biological activity of no less than 5 Units/mg (S2266 method).
Stability	KLK1 although stable at 4°C for 3 weeks, should be stored desiccated below -18°C. Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	KLK1 kallikrein 1 [Homo sapiens]
Synonyms	kallikrein serine protease 1; kallikrein 1, renal/pancreas/salivary; Klk6; KLKR; KLK1; hK1; kallikrein 1; tissue kallikrein; glandular kallikrein 1; EC 3.4.21.35; Kidney/pancreas/salivary gland kallikrein
Gene ID	3816
mRNA Refseq	NM_002257
Protein Refseq	NP_002248
MIM	147910
UniProt ID	P06870
Chromosome Location	19q13.3

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Function	peptidase activity; serine-type endopeptidase activity
PDB rendering based on 1spj.	

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