

## Overview

<b>Synonyms</b>	KLK-1, His Human ;
<b>Description</b>	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.
<b>Species</b>	Human
<b>Source</b>	<i>E. coli</i>
<b>Biological Activity</b>	Fully biologically active when compared to standard. The specific activity determined by cleaving a flourogenic peptide substrate Pro-Phe-Arg-7-amido-4-methylcoumarin (PFRAMC) is not less than 1,500 pmoles/min/μg.
<b>Sequence</b>	MWFLVLCLAL SLGGTGAAPP IQSRIVGGWE CEQHSQPWQA ALYHFSTFQC GGILVHRQWV LTAAHCISDN YQLWLGRHNL FDDENTAQFV HVSESFPHPG FNMSLLENHT RQADEDYSHD LMLRLTEPA DTITDAVKV ELPTTEEPEVG STCLASGWGS IEPENFSFPD DLQCVDLKIL PNDECKKAHV QKVTDFMLCV GHLEGGKDTG VGDSGGPLMC DGVLQGVTSW GYVPCGTPNK PSVAVRVLSY VKWIEDTIAE NSHHHHHH

## Properties

<b>Measured Molecular Weight</b>	Approximately 29.7 kDa, a single non-glycosylated polypeptide chain containing 268 amino acids with 6 × His at C-terminus.
<b>Purity</b>	>95% by SDS-PAGE and HPLC analyses.
<b>Formulation</b>	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
<b>Reconstitution</b>	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 d -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Endotoxin Level</b>	Less than 1 EU/μg of rHuKLK-1, His as determined by LAL method.
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Storage</b>	This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. <b>Avoid repeated freeze/thaw cycles.</b>

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