

DATASHEET

Version 20181206

Kallikrein-1, His, Human

Cat. No.: Z02906-1

Size: 1.0 mg

Synonyms: KLK-1, His Human ;

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.

Amino Acid Sequence:

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00001 MWFLVLCLAL SLGGTGAAPP IQSRIVGGWE CEQHSQPWQA
00041 ALYHFSTFQC GGILVHRQWV LTAHCISDN YQLWLGRHNL
00081 FDDENTAQFV HVSESPHPG FNMSLLENHT RQADEDYSHD
00121 LMLRLTEPA DTITDAVKV ELPTEEPEVG STCLASGWGS
00161 IEPENFSFPD DLQCVDLKIL PNDECKKAHV QKVTDFMLCV
00201 GHLEGGKDTG VGDSGGPLMC DGVLQGVTSW GYVPCGTPNK
00241 PSVAVRVLSY VKWIEDTIAE NSHHHHHH
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Source: *E. coli*

Species: Human

Biological Activity: Fully biologically active when compared to standard. The specific activity determined by cleaving a fluorogenic peptide substrate Pro-Phe-Arg-7-amido-4-methylcoumarin (PFRAMC) is not less than 1,500 pmoles/min/μg.

Molecular Weight: Approximately 29.7 kDa, a single non-glycosylated polypeptide chain containing 268 amino acids with 6 × His at C-terminus.

Formulation: Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.

Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

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 °C. Further dilutions should be made in appropriate buffered solutions.

Purity: >95% by SDS-PAGE and HPLC analyses.

Endotoxin Level: Less than 1 EU/μg of rHuKLK-1, His as determined by LAL method.

Storage: 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. Avoid repeated freeze/thaw cycles.