Catalog # KL1-M52H9



#### Synonym

Fletcher factor,kallikrein B, plasma (Fletcher factor) 1,kininogenin,KLK3 plasma kallikrein,KLKB1,plasma kallikrein heavy chain,plasma kallikrein light chain,Plasma Kallikrein,Plasma Prekallikrein,PPK,KLKB1

#### Source

Mouse Plasma Kallikrein/KLKB1, His Tag(KL1-M52H9) is expressed from human 293 cells (HEK293). It contains AA Gly 20 - Ala 638 (Accession # <u>P26262-1</u>).

Predicted N-terminus: Gly 20

### **Molecular Characterization**

Plasma Kallikrein/KLKB1(Gly 20 - Ala 638) P26262-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 71.1 kDa. The protein migrates as 33 kDa,50 kDa and 80 kDa when calibrated against <u>Star Ribbon Pre-stained Protein</u> <u>Marker</u> under reducing (R) condition (SDS-PAGE).

#### Endotoxin

Less than 1.0 EU per  $\mu$ g by the LAL method.

### Purity

>95% as determined by SDS-PAGE.

#### Formulation

Lyophilized from 0.22  $\mu$ m filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

#### Storage

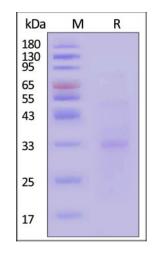
For long term storage, the product should be stored at lyophilized state at  $-20^{\circ}$ C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- $70^{\circ}$ C for 3 months under sterile conditions after reconstitution.

# **SDS-PAGE**



Mouse Plasma Kallikrein/KLKB1, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

### **Bioactivity**

Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH2 ,The specific activity is >300 pmol/min/µg (QC tested).



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## Background

Human Plasma Kallikrein, a serine protease, is synthesized in the liver and circulates in the plasma by binding to high molecular weight (HMW) kininogen or as a free zymogen. The enzyme cleaves Lys-Arg and Arg-Ser bonds. It activates, in a reciprocal reaction, factor XII after its binding to a negatively charged surface. It also releases bradykinin from HMW kininogen and may also play a role in the renin-angiotensin system by converting prorenin into renin.

# **Clinical and Translational Updates**



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