# Human Kallikrein 1 / KLK-1 (25-262) Protein, His Tag (active enzyme, HPLC verified)

Catalog # KL1-H52H4



## **Synonym**

KLK1, Kallikrein-1, KLKR, Klk6

#### Source

Human Kallikrein 1 (25-262) Protein, His Tag(KL1-H52H4) is expressed from human 293 cells (HEK293). It contains AA Ile 25 - Ser 262 (Accession # P06870-1).

Predicted N-terminus: Pro 19

### **Molecular Characterization**

Kallikrein 1(Ile 25 - Ser 262) P06870-1

Poly-his

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

The protein has a calculated MW of 28.3 kDa. The protein migrates as 39-42 kDa and 43-46 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### Endotoxin

Less than 1.0 EU per µg by the LAL method.

# **Purity**

>95% as determined by SDS-PAGE.

>90% as determined by SEC-HPLC.

#### **Formulation**

Supplied as 0.2  $\mu m$  filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

### **Shipping**

This product is supplied and shipped with dry ice, please inquire the shipping cost.

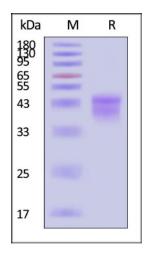
## Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

# **SDS-PAGE**

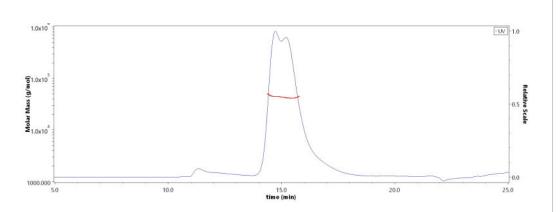


Human Kallikrein 1 (25-262) Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

## **Bioactivity**

Measured by its ability to cleave a flourogenic peptide substrate Pro-Phe-Arg-7-amido-4-methylcoumarin (PFR-AMC). The specific activity is >8000 pmol/min/ $\mu$ g (QC tested).

## SEC-HPLC



The purity of Human Kallikrein 1 (25-262) Protein, His Tag (Cat. No. KL1-H52H4) was greater than 90% as determined by SEC-HPLC.

## Background



# Human Kallikrein 1 / KLK-1 (25-262) Protein, His Tag (active enzyme, HPLC verified)

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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** 

