

# Human Kallikrein 1/KLK1 Protein (active form)

Cat. No. KLK-HM101

## Description

|                         |   |
|-------------------------|---|
| <b>Source</b>           | Recombinant Human Kallikrein 1/KLK1 Protein (active form) is expressed from HEK293 with His tag at the C-terminus.<br>It contains Ile25-Ser262. |
| <b>Accession</b>        | P06870-1  |
| <b>Molecular Weight</b> | The protein has a predicted MW of 27.5 kDa. Due to glycosylation, the protein migrates to 35-50 kDa based on Bis-Tris PAGE result.              |
| <b>Endotoxin</b>        | Less than 1 EU per µg by the LAL method.  |
| <b>Purity</b>           | > 95% as determined by Bis-Tris PAGE<br>> 95% as determined by HPLC   |

## Formulation and Storage

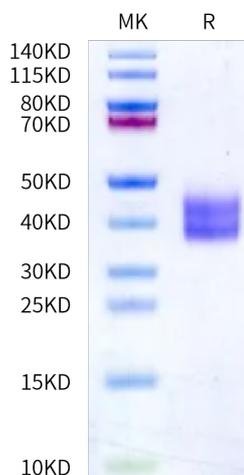
|                       |   |
|-----------------------|---|
| <b>Formulation</b>    | Lyophilized from 0.22 µm filtered solution in 50mM Tris, 150mM NaCl, 8% trehalose (pH 7.5).   |
| <b>Reconstitution</b> | Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.   |
| <b>Storage</b>        | -20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles. |

## Background

KLK1 (tissue kallikrein 1) is a member of the tissue kallikrein family of serine proteases, which, in humans, comprises 15 proteases and constitutes the largest contiguous cluster of any family of proteases on the human genome. KLK1 cleaves both low-molecular-mass kininogen and HMMK (high-molecular-mass kininogen) at two sites to release the decapeptide kinin Lys-bradykinin (Lys-Arg-Pro-Pro-Gly-Phe-Ser-Pro-Phe-Arg).

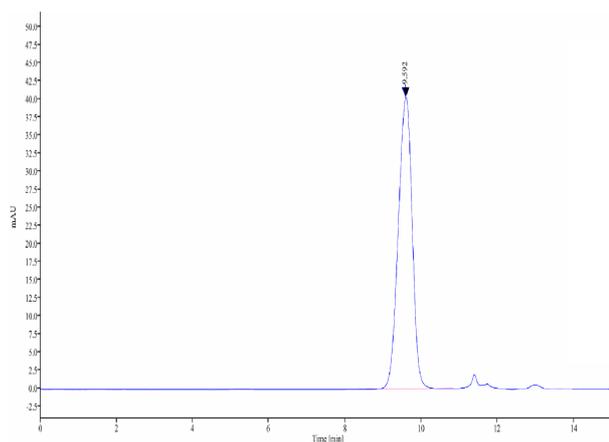
## Assay Data

### Bis-Tris PAGE



Human Kallikrein 1 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC



The purity of Human Kallikrein 1 is greater than 95% as determined by SEC-HPLC.

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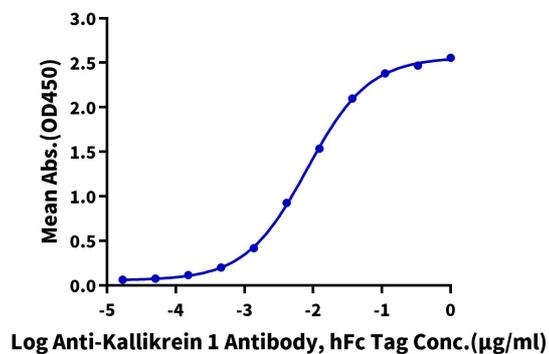
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## Assay Data

### ELISA Data

#### Human Kallikrein 1 (active form), His Tag ELISA

0.05µg Human Kallikrein 1 (active form), His Tag Per Well



Immobilized Human Kallikrein 1 (active form), His Tag at 0.5µg/ml (100µl/well) on the plate. Dose response curve for Anti-Kallikrein 1 Antibody, hFc Tag with the EC50 of 8.2ng/ml determined by ELISA.

### Bioactivity Data

Measured by its ability to cleave the fluorogenic peptide substrate: Pro-Phe-Arg-7-amido-4-methylcoumarin (PFR-AMC). The specific activity is >8000 pmol/min/µg.