

# Human Kallikrein 4/KLK4 Protein (active form)

Cat. No. KLK-HM104

## Description

<b>Source</b>	Recombinant Human Kallikrein 4/KLK4 Protein (active form) is expressed from HEK293 with His tag at the C-terminus. It contains Ile31-Ser254.
<b>Accession</b>	Q9Y5K2-1
<b>Molecular Weight</b>	The protein has a predicted MW of 25.61 kDa. Due to glycosylation, the protein migrates to 27-37 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 0.1 EU per µg by the LAL method.
<b>Purity</b>	> 90% as determined by Bis-Tris PAGE > 90% as determined by HPLC

## Formulation and Storage

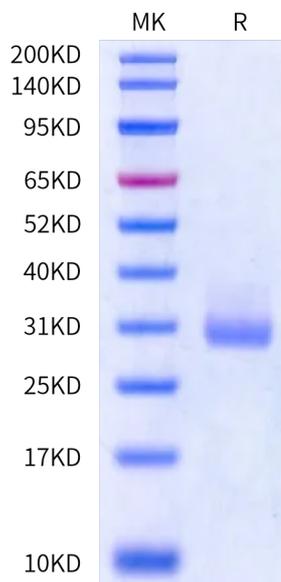
<b>Formulation</b>	Lyophilized from 0.22 µm filtered solution in 20mM HEPES, 150mM NaCl, 8% trehalose, 0.05% Brij-35, 5mM Benzamidine (pH 7.5).
<b>Reconstitution</b>	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
<b>Storage</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

Human tissue kallikrein 4 (hK4) is a member of a highly conserved gene family which contains 15 human enzymes composed of closely related serine proteases. The hK4 enzyme is a subgroup of the serine proteases that catalyzes the cutting of the peptide backbone in proteins via hydrolysis. kallikreins been known to catalyze the break down of bradykinogen to bradykinin and plasminogen to plasmin, in addition to being active in initiating intracellular signaling through protease-activated receptors.

## Assay Data

### Bis-Tris PAGE



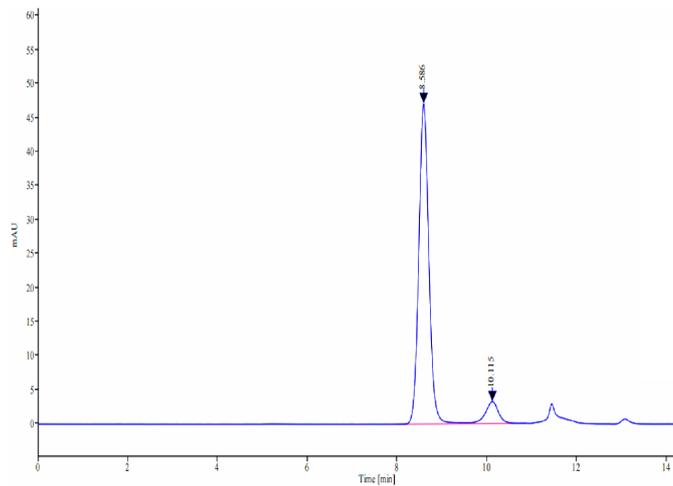
Human Kallikrein 4 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

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## Assay Data



The purity of Human Kallikrein 4 is greater than 95% as determined by SEC-HPLC.

## Bioactivity Data

Measured by its ability to cleave the fluorogenic peptide substrate Boc-VPR-AMC. The specific activity is >1200 pmol/min/μg.