

# Human Kallikrein 7/KLK7 Protein (pro form)

Cat. No. KLK-HM617

KACUS

## Description

Source	Recombinant Human Kallikrein 7/KLK7 Protein (pro form) is expressed from HEK293 with His tag and Flag tag at the C-terminus. The protein needs to be activated by Thermolysin for an activated form.
	It contains Glu23-Arg253.
Accession	P49862
Molecular Weight	The protein has a predicted MW of 27.29 kDa. Due to glycosylation, the protein migrates to 25-30 kDa based on Tris-Bis PAGE result.
Endotoxin	Less than 1 EU per $\mu$ g by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 90% as determined by HPLC

## Formulation and Storage

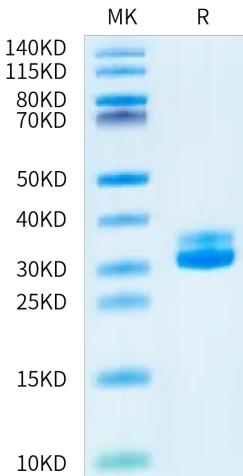
Formulation	Lyophilized from 0.22 $\mu$ m filtered solution in 20mM HEPES, 150mM NaCl (pH 7.5). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-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

Kallikrein 7 (KLK7) is a secreted serine protease with chymotrypsic protease activity. Abnormally high expression of KLK7 is closely related to the occurrence and development of various types of cancer. Therefore, KLK7 has been identified as a potential target for cancer drug development design in recent years. KLK7 mediates various biological and pathological processes in tumorigenesis, including cell proliferation, migration, invasion, angiogenesis, and cell metabolism, by hydrolyzing a series of substrates such as membrane proteins, extracellular matrix proteins, and cytokines.

## Assay Data

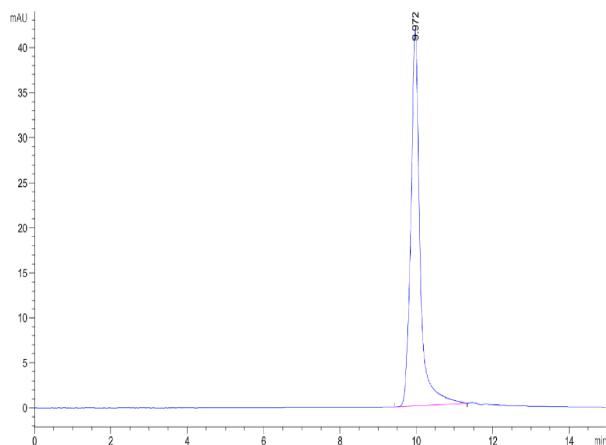
### Bis-Tris PAGE



Human Kallikrein 7 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

Assay Data

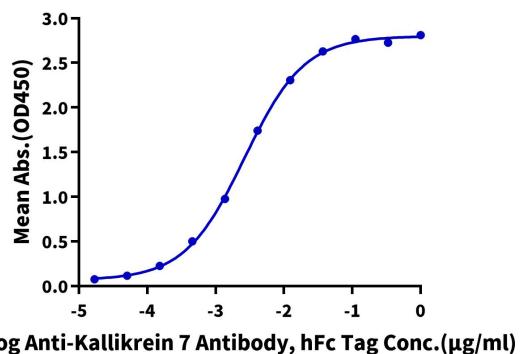


The purity of Human Kallikrein 7 is greater than 90% as determined by SEC-HPLC.

## Assay Data

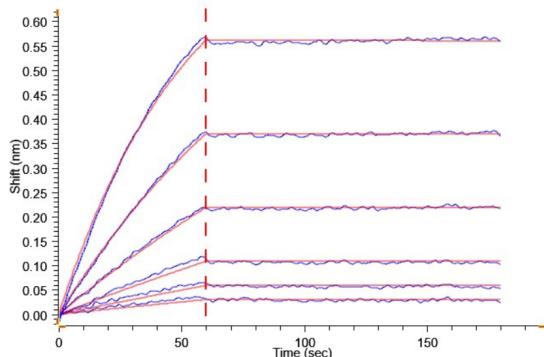
## ELISA Data

## Human Kallikrein 7, His Tag ELISA

0.05 $\mu$ g Human Kallikrein 7, His Tag Per Well

Immobilized Human Kallikrein 7, His Tag at 0.5 $\mu$ g/ml (100 $\mu$ l/well) on the plate. Dose response curve for Anti-Kallikrein 7 Antibody, hFc Tag with the EC50 of 2.6ng/ml determined by ELISA.

## BLI Data



Loaded Anti-Kallikrein 7 Antibody, hFc Tag on ProA-Biosensor can bind Human Kallikrein 7, His Tag with an affinity constant of 0.13 nM as determined in BLI assay (Gator® Prime).

## Bioactivity Data

Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH<SUB>2</SUB>. The specific activity is >150 pmol/min/ $\mu$ g.