

Human Kallikrein 5/KLK5 Protein (active form), Ultra Low Endotoxin



Cat. No. KLK-HM105-UL

Description

Source	Recombinant Human Kallikrein 5/KLK5 Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Ile67-Ser293.
Accession	Q9Y337
Molecular Weight	The protein has a predicted MW of 30.7 kDa. Due to glycosylation, the protein migrates to 42-48 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 0.01 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

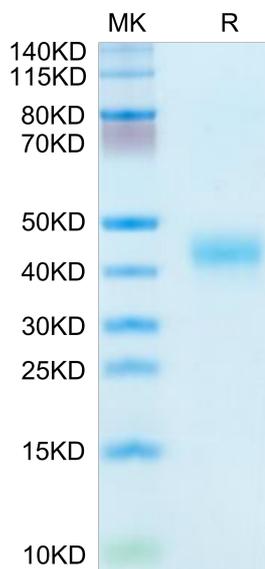
Formulation	Lyophilized from 0.22µm filtered solution in 50mM MES, 150mM NaCl (pH 5.5). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in 50mM MES (pH 5.5). Please refer to the Certificate of Analysis for detailed instructions.
Storage	-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

The inhibition of kallikrein 5 (KLK5) has been identified as a potential strategy for treatment of the genetic skin disorder Netherton syndrome, in which loss-of-function mutations in the SPINK5 gene lead to down-regulation of the endogenous inhibitor LEKTI-1 and profound skin-barrier defects with severe allergic manifestations. To aid in the development of a medicine for this target, an X-ray crystallographic system was developed to facilitate fragment-guided chemistry and knowledge-based drug-discovery approaches.

Assay Data

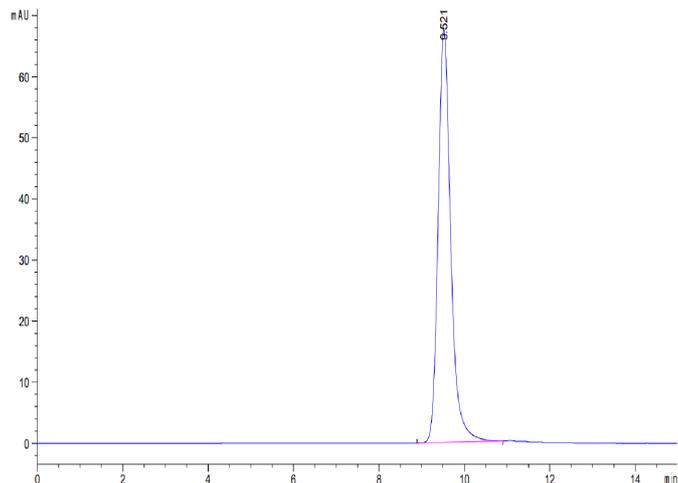
Bis-Tris PAGE



Human Kallikrein 5 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

Assay Data

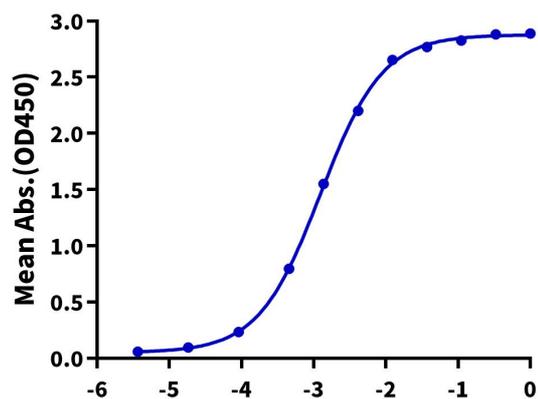


The purity of Human Kallikrein 5 is greater than 95% as determined by SEC-HPLC.

ELISA Data

Human Kallikrein 5, His Tag ELISA

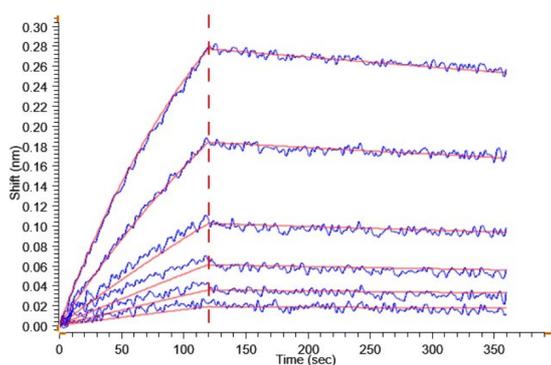
0.05µg Human Kallikrein 5, His Tag Per Well



Immobilized Human Kallikrein 5, His Tag at 0.5µg/ml (100µl/Well) on the plate. Dose response curve for Anti-Kallikrein 5 Antibody, hFc Tag with the EC50 of 3.7ng/ml determined by ELISA (QC Test).

Log Anti-Kallikrein 5 Antibody, hFc Tag Conc.(µg/ml)

BLI Data



Loaded Anti-Kallikrein 5 Antibody, hFc Tag on ProA-Biosensor can bind Human Kallikrein 5, His Tag with an affinity constant of 1.23 nM as determined in BLI assay .

Bioactivity Data

Measured by its ability to cleave the fluorogenic peptide substrate Boc-VPR-AMC. The specific activity is >400 pmol/min/µg (QC Test).