

Human Kallikrein 5/KLK5 Protein (active form)

Cat. No. KLK-HM005

Description

Source	Recombinant Human Kallikrein 5/KLK5 Protein (active form) is expressed from HEK293 without tag. It contains Ile67-Ser293.
Accession	Q9Y337
Molecular Weight	The protein has a predicted MW of 25.15 kDa. Due to glycosylation, the protein migrates to 31-50 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 0.1 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

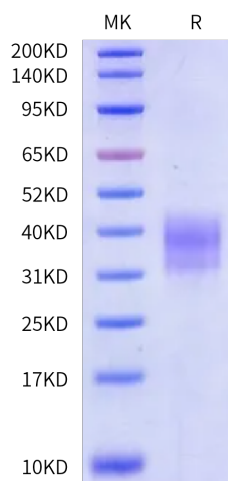
Formulation	Lyophilized from 0.22 µm filtered solution in 50mM MES, 150mM NaCl (pH 5.5). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in 50mM MES (pH 5.5). Please refer to the Certificate of Analysis for detailed instructions.
Storage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

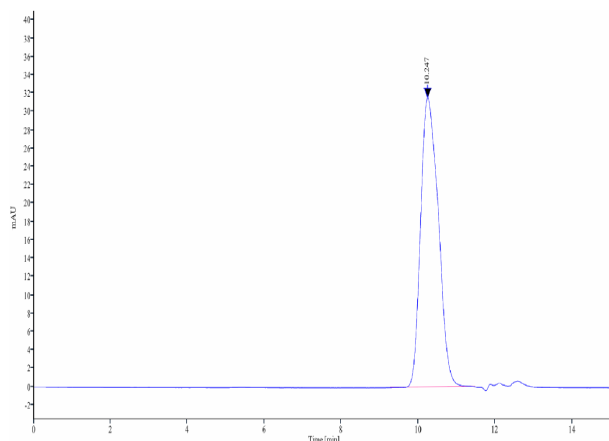
Assay Data

Bis-Tris PAGE



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

SEC-HPLC



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

Human Kallikrein 5/KLK5 Protein (active form)

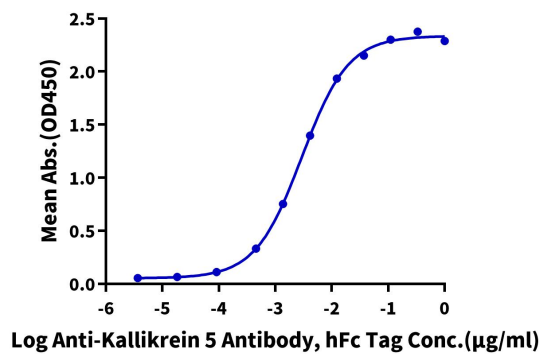
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Assay Data

ELISA Data

Human Kallikrein 5, No Tag ELISA

0.05µg Human Kallikrein 5, No Tag Per Well



Immobilized Human Kallikrein 5, No Tag at 0.5µg/ml (100µl/well) on the plate. Dose response curve for Anti-Kallikrein 5 Antibody, hFc Tag with the EC50 of 3.0ng/ml determined by ELISA.

Bioactivity Data

Measured by its ability to cleave the fluorogenic peptide substrate Boc-VPR-AMC. The specific activity is >550 pmol/min/µg.