

Human Kallikrein 3 / KLK-3 Protein, His Tag (active enzyme, MALS verified)

Catalog # KL3-H5227



Synonyms

KLK3, Kallikrein-3, APS, KLK2A1, PSA, Hk3, Semin, Semenogelase

Source

Human Kallikrein 3 Protein, His Tag (KL3-H5227) is expressed from human 293 cells (HEK293). It contains AA Ile 25 - Pro 261 (Accession # [P07288-1](#)).

Predicted N-terminus: Ile 25

Molecular Characterization

Kallikrein 3(Ile 25 - Pro 261) P07288-1	Poly-his
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This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 28.0 kDa. The protein migrates as 30-35 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Shipping and Storage

This product is shipped at ambient temperature.

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

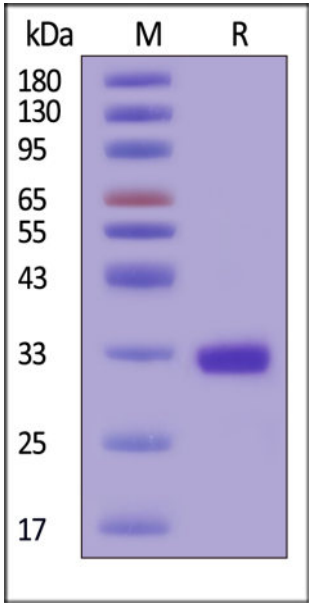
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

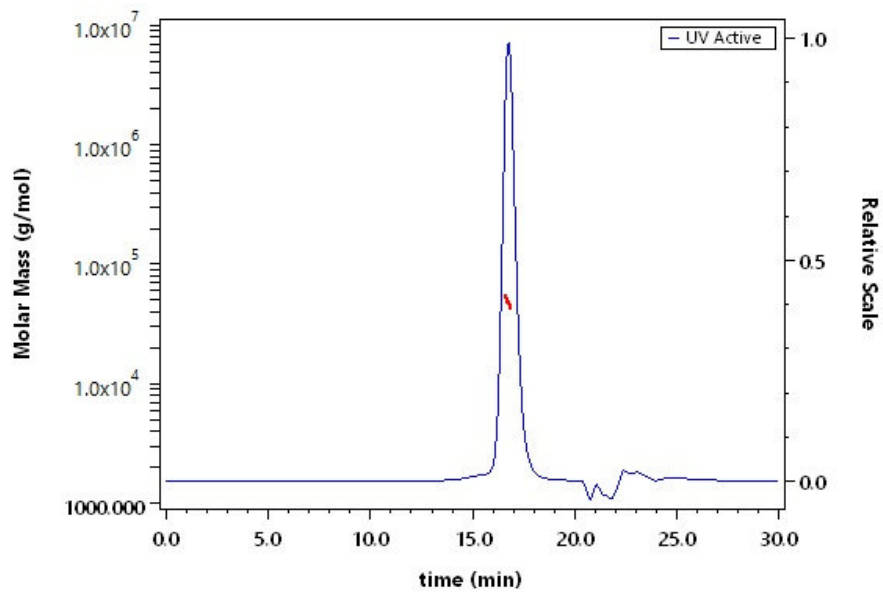
- [QMS\(ISO, GMP\)](#).
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



Human Kallikrein 3 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



The purity of Human Kallikrein 3 Protein, His Tag (Cat. No. KL3-H5227) is more than 95% and the molecular weight of this protein is around 30-50 kDa verified by SEC-MALS.

Bioactivity

Measured by its ability to cleave the colorimetric peptide substrate, Succinyl-Arg-Pro-Tyr-p-Nitroanilide (SucRPyNA). The specific activity is >200 pmol/min/μg (QC tested).

Background

Kallikrein-related peptidase 3, more commonly known as Kallikrein 3 (KLK3) or Prostate-Specific Antigen (PSA), is a serine protease belonging to the kallikrein family. Its primary function is to cleave proteins, and it is a key biomarker for prostate cancer. Secreted by the epithelial cells of the prostate gland, elevated levels of KLK3 in the blood are often indicative of prostate pathologies, including benign prostatic hyperplasia and prostate cancer. Beyond its role as a diagnostic marker, recent research explores its potential as a therapeutic target in cancer treatment. Its unique expression pattern and enzymatic function make it a subject of extensive research in oncology.



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