

# Recombinant Human PSA/KLK3 Protein

Catalog No.: RP01540 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	354	P07288

### Tags

C-His

### Synonyms

APS; KLK2A1; PSA; hK3;KLK3; APS;  
prostate-specific  
antigen;KLK2A1;PSA;hK3

## Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
27.68 kDa	30-32 kDa

### Endotoxin

<0.1EU/μg

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening.  
Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

KLK3 (Kallikrein Related Peptidase 3) is a Protein Coding gene. The gene is one of the fifteen kallikrein subfamily members located in a cluster on chromosome 19. It encodes a single-chain glycoprotein, a protease that is synthesized in the epithelial cells of the prostate gland and is present in seminal plasma. KLK3, also known as Prostate Specific Antigen (PSA), kallikrein-related peptidase 3, Gamma-seminoprotein, is a secreted protein of the glandular kallikrein subfamily of serine proteases. KLK3 contains one peptidase S1 domain. KLK3 is a glycoprotein produced almost exclusively by the prostate gland. Growing evidence suggests that many kallikreins are implicated in carcinogenesis and some have potential as novel cancer and other disease biomarkers.

## Basic Information

### Description

Recombinant Human PSA/KLK3 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ala18-Pro261) of human PSA/KLK3 (Accession #NP\_001639.1) fused with a 6×His tag at the C-terminus.

### Bio-Activity

Measured by its ability to cleave the colorimetric peptide substrate, Succinyl-Arg-Pro-Tyr-p- Nitroanilide (Suc-RPY-pNA). The specific activity is >160 pmol/min/μg, as measured under the described conditions.

### Storage

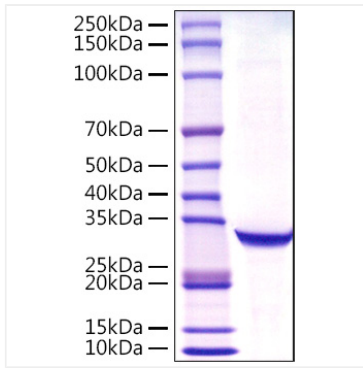
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

## Validation Data

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Recombinant Human PSA/KLK3 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 30-32kDa.