

Recombinant Human PSA/KLK3 Protein

Catalog No.: RP01540 **Recombinant**

Sequence Information

Species Human **Gene ID** 354 **Swiss Prot** P07288

Tags

C-His

Synonyms

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

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

Product Information

Source HEK293 cells **Purification** $\geq 95\%$ as determined by SDS-PAGE.

Calculated MW 27.68 kDa **Observed MW** 30-32 kDa

Endotoxin

< 0.1 EU/ μ g of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μ m 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 freeze/thaw cycles.

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 \times 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/ μ g, as measured under the described conditions.

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

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.

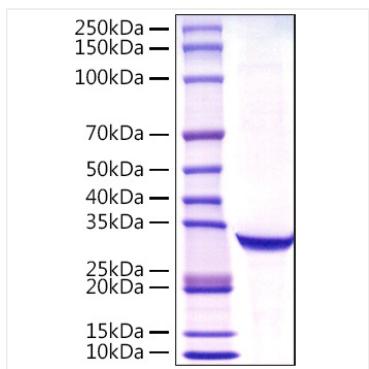
Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

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Validation Data



Recombinant Human PSA/KLK3 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.