

Human KLK3 / PSA / Kallikrein-3 Protein (His Tag)

Catalog Number: 10771-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

APS; Hk3; KLK2A1; PSA

Protein Construction:

A DNA sequence encoding the human KLK3 (P07288) (Met 1-Pro 261) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

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 >100 pmoles/min/μg. (Activation description: The proenzyme needs to be activated by Thermolysin for an activated form)

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ala 18

Molecular Mass:

The recombinant human KLK3 consists of 255 amino acids and has a predicted molecular mass of 28.3 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh KLK3 is approximately 35 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

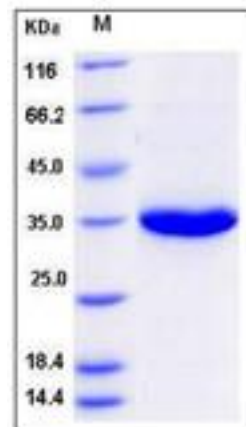
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

KLK3(Kallikrein 3), 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.

References

- 1.Koistinen H, *et al.* (2008) Development of peptides specifically modulating the activity of KLK2 and KLK3. *Biol Chem.* 389(6): 633-42.
- 2.Yousef GM, *et al.* (2002) Kallikreins, steroid hormones and ovarian cancer: is there a link? *Minerva Endocrinol.* 27(3): 157-66.
- 3.Parikh H, *et al.* (2011) Fine mapping the KLK3 locus on chromosome 19q13.33 associated with prostate cancer susceptibility and PSA levels. *Hum Genet.* 129(6): 675-85.

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