

Recombinant Human KLK3 (Kallikrein-3)

CATALOG #: 4727-20 20 µg
4727-100 100 µg
4727-1000 1 mg

ALTERNATE NAMES: APS, KLK2A1, PSA, Hk3

SOURCE: Human

PURITY: ≥95% by SDS-PAGE

ENDOTOXIN LEVEL: ≤ 1 EU/µg protein

MOL. WEIGHT: 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 and mannitol are added as protectants before lyophilization.)

RECONSTITUTION: Detailed reconstitution instructions are sent along with the product.

STORAGE CONDITIONS:

Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

DESCRIPTION:

Prostate-specific antigen, also known as Gamma-seminoprotein, Kallikrein-3, kallikrein-related peptidase 3, Semenogelase, KLK3 and PSA, is a secreted protein which belongs to the peptidase S1 family and Kallikrein subfamily. KLK3 / PSA contains one peptidase S1 domain. KLK3 / PSA is a glycoprotein produced almost exclusively by the prostate gland. KLK3 / PSA is produced for the ejaculate where it liquifies the semen in the seminal coagulum and allows sperm to swim freely. It is also believed to be instrumental in dissolving the cervical mucus, allowing the entry of sperm. Human KLK3 / PSA and human KLK2 are closely related products of the human kallikrein genes KLK3 and KLK2, respectively. Both KLK3 / PSA and human kallikrein 2 are produced and secreted in the prostate and have important applications in the diagnosis of prostate cancer. Understanding the mechanism by which genetic variation in KLK3 / APS affects prostate

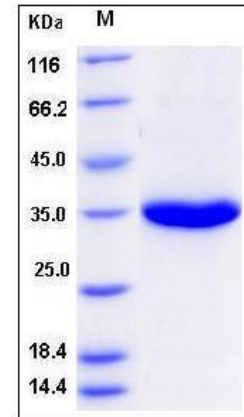
cancer risk has important implications for study of the biological role of KLK3 / APS in prostate tumorigenesis.

BIOLOGICAL 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.

Note: The protein needs to be pre-activated by Thermolysin to be able to measure biological activity

SDS-PAGE:



RELATED PRODUCTS:

- Kallikrein 12 Antibody (KLK12) (Cat. No. 3720-100)
- Kallikrein 12 Blocking Peptide (KLK12) (Cat. No. 3720BP-50)

FOR RESEARCH USE ONLY! Not to be used on humans.