

Product Specification Sheet

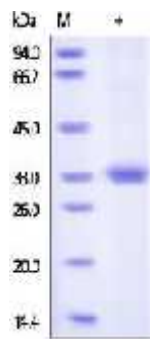
Recombinant Human Prostate-specific antigen (PSA/KL3)

- Cat. # PSA20-R-10 Recombinant (HEK) Human Prostate Specific Antigen (PSA/KLKB1/Kallikrein-3/KLK3,) protein (His-tag, >95%, low endotoxin, active) **SIZE: 10 ug**
- Cat. # PSA20-R-50 Recombinant (HEK) Human Prostate Specific Antigen (PSA/KLKB1/Kallikrein-3/KLK3,) protein (His-tag, >95%, low endotoxin, active) **SIZE: 50 ug**

Human Prostate-specific antigen (PSA) is a single chain glycoprotein with Mol. Wt. Of 34 kDa containing 7% carbohydrates. It is uniquely associated with prostate tissue and presents in both normal and cancerous prostatic tissue, prostatic fluid and seminal plasma. PSA is not present in any of the normal tissue obtained from men nor is it produced by cancers of the lung, colon, rectum, stomach, breast, pancreas or thyroid. Elevated serum PSA concentration have been reported in patient with prostate cancer, benign prostatic hypertrophy, or inflammatory tissues, but not in apparently healthy women with cancer. PSA levels correlate with the stage of disease and response to treatment in-patients with prostatic cancer. Therefore sequential measurements of PSA concentration can be an important tool in monitoring patients with prostatic cancer and in determining the potential and effectiveness of surgery of other therapies.

Kallikrein-3 (KLK3) is also known as Prostate-specific antigen (PSA), APS, Gamma-seminoprotein (Seminin), P-30 antigen, Semenogelase, is a glycoprotein enzyme, is a member of the kallikrein-related peptidase family and is secreted by the epithelial cells of the prostate gland. The preferential cleavage site of KLK3 is "-Tyr-I-Xaa-", the catalytic activity is inhibited by SERPINA5 and is strongly inhibited by Zn²⁺. KLK3 hydrolyzes semenogelin-1 thus leading to the liquefaction of the seminal coagulum.

Source of Antigen and Antibodies



Recombinant Human PSA /KLK3 /Kallikrein-3 Protein (rhKallikrein-3 /KLK3) Ala 18 - Pro 261 (Accession # NP_001639) was produced in human 293 cells as his-tag fusion protein and purified (>95%, MOI wt 27.7 kda; migrates as 36-kda protein due to glycosylation under reducing sds-PAGE). The predicted N-terminus is Ala 18.

Recombinant PSA is supplied solution in 50 mM Tris, 150 mM NaCl, pH7.5. Normally Mannitol or Trehalose are added as protectants before lyophilization. in either liquid or lyophilized form (lot specific conc on the vial). This preparation is not necessarily sterile.

Endotoxin: Less than 1.0 EU per µg of the rhKallikrein-3 /KLK3 by the LAL method.

Bioactivity: Measured by its ability to cleave the colorimetric peptide substrate, Succinyl – Arg – Pro – Tyr – p – Nitroanilide (Suc-RPY-pNA). The specific activity is >60 pmoles / min / µg.

Storage and Stability

Store frozen at –20oC or below. Lyophilized material Avoid repeated freeze-thaw cycles. No activity loss was observed after storage at: •4-8°C for 1 year in lyophilized state •-70°C for 3 months under sterile conditions after reconstitution.

Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Western Blotting: load 10-200 ng/lane for reaction with appropriate antibodies.

ELISA: for coating at 0.11 ug/ml or as standards.

References: Espana F (1991) Thromb. Res. 64, 309-320; Menez R (2006) J. Mol. Biol. 376, 1021-1033

**This product is for In vitro research use only.*

Related material available from ADI

Human total PSA and free PSA ELISA kits

| AntibodyType | Catalog# | ProdDescription |
|--------------|-----------|--|
| Rabbit-Poly | PSA11-A | Anti-human prostate specific antigen (PSA) IgG # 1, aff pure |
| PSA11-C | | Human prostate specific antigen (PSA) purified protein control for WB |
| Mouse-Mono | PSA12-BTN | Monoclonal Anti-Human prostate specific antigen (PSA) IgG # 2-Biotinylated |
| Mouse-Mono | PSA12-M | Monoclonal Anti-Human prostate specific antigen (PSA) IgG # 2, aff pure |
| Mouse-Mono | PSA13-M | Monoclonal Anti-Human free prostate specific antigen (fPSA) IgG # 3 aff pure |
| Mono-Mice | PSA13-M-1 | Monoclonal Anti-Human free prostate specific antigen (fPSA) IgG # 3 aff pure |
| Mouse-Mono | PSA14-M | Monoclonal Anti-Human free prostate specific antigen (fPSA) IgG # 4 aff pure |
| Mono-Mice | PSA14-M-1 | Monoclonal Anti-Human free prostate specific antigen (fPSA) IgG # 4 aff pure |
| Mouse-Mono | PSA15-M | Monoclonal Anti-Human PSA/ACT complex IgG # 1 aff pure |
| Mono-Mice | PSA15-M-1 | Monoclonal Anti-Human PSA/ACT complex IgG # 1 aff pure |
| PSA15-N-100 | | Human Prostate Specific Antigen (PSA) protein, purified |
| PSA16-N-10 | | Human Prostate Specific Antigen (PSA)/ACT complex protein >99% pure |
| Goat-Poly | PSA17-A | Anti-human prostate specific antigen (PSA) IgG aff pure |
| Mouse-Mono | PSA18-M | Mouse Anti-human prostate specific antigen (PSA) IgG aff pure |
| Mouse-Mono | PSA19-M | Mouse Anti-human prostate specific antigen (PSA) IgG, aff pure |
| PSA20-R-10 | | Human-Recombinant-PSA-Active-Protein 150415A |