



Recombinant Protein Technical Manual

**Recombinant Human PSA/KLK3 Protein (aa 25-261,
His Tag)**
RPES2968

Product Data:

Product SKU: RPES2968

Size: 10µg

Species: Human

Expression host: Human Cells

Uniprot: P07288

Protein Information:

Molecular Mass: 27.1 kDa

AP Molecular Mass: 35 kDa

Tag: C-6His

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

Shipping: This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.

Formulation: Supplied as a 0.2 µm filtered solution of 20mM TrisHcl, 150mM NaCl, 1mM CaCl₂, pH7.5.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: APS;Hk3;KLK2A1;PSA;Prostate-Specific Antigen; PSA; Gamma-Seminoprotein; Semin; Kallikrein-3; P-30 Antigen; Semenogelase;

Immunogen Information:

Sequence: Ile25-Pro261

Background:

KLK3, also known as APS, is short for Prostate-specific antigen. It is a 261 aa. protein which belongs to the peptidase S1 family and Kallikrein subfamily. This protein has 5 isoforms produced by alternative splicing. It is a secreted protein and can form a heterodimer with SERPINA5 which can inhibit its activity. KLK3 is also strongly inhibited by Zn^{2+} , 100 times more abundant in semen than in serum. This inhibition is relieved by exposure to semenogelins, which are avid zinc binders. KLK3 can hydrolyze semenogelin thus leading to the liquefaction of the seminal coagulum.