Active Recombinant Human KLK3 protein, His-tagged

Cat. No. KLK3-1201H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human KLK3 protein(P07288)(18~261 aa), fused with N-terminal His tag, was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	18-261 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Kallikrein 3, commonly known as prostate specific antigen (PSA), is a serine protease of the human tissue Kallikrein gene family. PSA is synthesized in the ductal and acinar epithelium of the prostate gland and secreted into the seminal plasma in high concentrations (0.5 - 2 g/L). A small portion of PSA “leaks” into the systemic circulation, the levels of which increase significantly (30-fold) from prostate cancer tissue than normal prostate tissue. PSA has become a well established tumor marker that aids the diagnosis, staging, and follow up of prostate cancer. The activity of recombinant human KLK3 is measured by its ability to cleave a colorimetric peptide substrate Suc-Arg-Pro-Tyr-pNa in the assay buffer 50 mM Tris, 1 M NaCl, pH 8.0. The rhKLK3 is diluted to 200 ug/ml in activation buffer 50 mM Tris, 10 mM CaCl2, 150 mM NaCl, 0.05% Brij-35, pH 7.5, then activated with a final concentration of 1 ug/ml Thermolysin at 37°C for 5min. Adding a final concentration of 10 mM 1,10

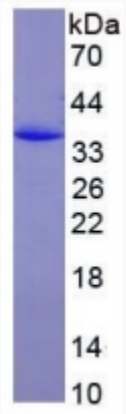
Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	Phenanthroline to stop the activation. The activated rhKLK3 is diluted to 50 ug/mL in assay buffer. Loading into a clear well plate 50 µ of 50 ug/mL rhKLK3 and start the reaction by adding 50 µ of 2 mM substrate, with a substrate blank containing 50 µ assay buffer, 50 µ substrate, and no rhKLK3. Then read at 405 nm in kinetic mode for 5 minutes. The specific activity of recombinant human KLK3 is > 50 pmol/min/µg.
Molecular Mass	28.5kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 97% as determined by SDS-PAGE.
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	KLK3 kallikrein-related peptidase 3 [Homo sapiens]
Official Symbol	KLK3
Synonyms	KLK3; kallikrein-related peptidase 3; APS, kallikrein 3, (prostate specific antigen); prostate-specific antigen; PSA; seminin; P-30 antigen; kallikrein-3; semenogelase; gamma-seminoprotein; prostate specific antigen; APS; hK3; KLK2A1;
Gene ID	354
mRNA Refseq	NM_001030047

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Protein Refseq	NP_001025218
MIM	176820
UniProt ID	P07288
SDS-PAGE	

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