

Recombinant Human Kallikrein-related Peptidase 3, His-tagged

Cat. No. KLK3-6791H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant humanKLK3 protein, fused to His-tag at N-terminus, was expressed in E.coli
Species	Human
Source	E.coli
Description	Prostate-specificantigen (PSA), also known as gamma-seminoprotein or kallikrein-3 (KLK3), is amember of the kallikrein-related peptidase family. Kallikreins are a subgroupof serine proteases having diverse physiological functions. Growing evidencesuggests that many kallikreins are implicated in carcinogenesis and some havepotential as novel cancer and other disease biomarkers. This protein is oneof the fifteen kallikrein subfamily members located in a cluster onchromosome 19 and is a protease present in seminal plasma. It is thought tofunction normally in the liquefaction of seminal coagulum, presumably byhydrolysis of the high molecular mass seminal vesicle protein. Serum level ofthis protein, called PSA in the clinical setting, is useful in the diagnosisand monitoring of prostatic carcinoma
Form	Liquid. 20mMTris-HCl buffer (pH8.0) containing 0.4M Urea
Molecular Weight	28.8 kDa (262aa)
Purity	> 90% by SDS -PAGE
Concentration	1mg/ml (determinedby Bradford assay)

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Sequences of aminoacids

MGSSHHHHHSSGLVPRGSH MGSHMIVGGW ECEKHSQPWQ VLVASRGRAV
 CGGVLVHPQW VLTAAH CIRN KSVILLGRHSLFHPEDTGQV FQVSHSFPHP
 LYDMSLLKNR FLRPGDDSSH DLMLLRLSEP AELTDAVKVM
 DLPTQEPALGTTCYASGWGS IEPEEF LTPK KLQCVDLHVI SNDVCAQVHP
 QKVTKFMLCA GRWTGGKSTC SGDSGGPLVCNGVLQGITSW GSEPCALPER
 PSLYTKVVHY RKWIKDTIVA NP

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name [KLK3 kallikrein-related peptidase 3 \[Homo sapiens \]](#)

Official Symbol [KLK3](#)

Synonyms KLK3; kallikrein-related peptidase3; APS, kallikrein 3, (prostate specific antigen); prostate-specific antigen; PSA

Gene ID [354](#)

mRNA Refseq [NM_001648](#)

Protein Refseq [NP_001639](#)

MIM [176820](#)

Uniprot ID [P07288](#)

Chromosome Location 19q13.41

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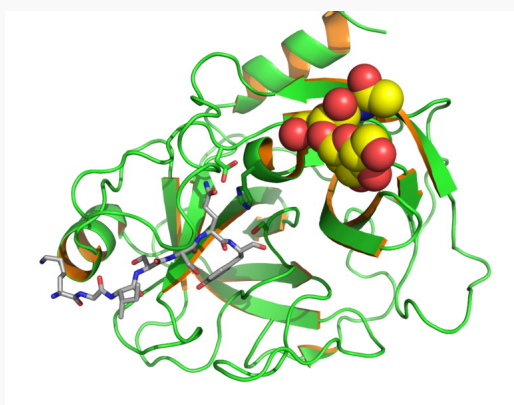
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Pathway Coregulation of Androgen receptor activity, organism-specific biosystem; Diabetes pathways, organism-specific biosystem; FOXA1 transcription factor network, organism-specific biosystem; Pathways in cancer, organism-specific biosystem; Prostate cancer, organism-specific biosystem

Function peptidase activity; protein binding; serine-type endopeptidase activity; serine-type peptidase activity

Crystallographic structure of human prostate-specific antigen (green/gold cartoon) covalently attached to an substrate acyl intermediate



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