

## Product datasheet for RC217029

### Prostate Specific Antigen (KLK3) (NM\_001030047) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Prostate Specific Antigen (KLK3) (NM_001030047) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Prostate Specific Antigen
Synonyms:	APS; hK3; KLK2A1; PSA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217029 representing NM_001030047 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCCGATCGCC

ATGTGGGTCCCGTTGTCTTCCTCACCCGTCCGTGACGTGGATTGGTGCTGCACCCCTCATCTGTCTC  
GGATTGTGGGAGGCTGGGAGTGCAGAAGCATTCCCAACCCTGGCAGGTGCTTGTGGCCTCTCGTGGCAG  
GGCAGTCTGCGGCGGTGTCTGGTGCACCCCAAGTGGTCTCACAGCTGCCACTGCATCAGGAACAAA  
AGCGTGATCTTGCTGGTCCGACACGCCTGTTTCATCCTGAAGACACAGGCCAGGTATTTAGGTACGCC  
ACAGCTTCCCACACCCGCTCTACGATATGAGCCTCCTGAAGAATCGATTCTCAGGCCAGGTGATGACTC  
CAGCCACGACCTCATGCTGCTCCGCTGTGAGAGCCTGCCGAGCTCACGGATGCTGTGAAGTGCATGGAC  
CTGCCACCCAGGAGCCAGCACTGGGGACCACTGCTACGCCTCAGGCTGGGGCAGCATTGAACCAGAGG  
AGTTCTTGACCCAAAGAACTTCAGTGTGTGGACCTCCATGTTATTTCCAATGACGTGTGTGCGCAAGT  
TCACCCTCAGAAGGTGACCAAGTTCATGCTGTGTGCTGGACGCTGGACAGGGGGCAAAGCACCTGCTCG  
TGGGTCACTTGATCACCGAAGTACCATGCCAGCCCTGCCGATGGTCTCCATGGTCCCTAGTGCCCT  
GGAGAGGAGGTGTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC217029 representing NM\_001030047  
 Red=Cloning site Green=Tags(s)

MWVPVFLTLSVTWIGAAPLILSRIVGGWECEKHSQPWQVLVASRGRAVCGGVLVHPQWVLTAAHCIRNK  
 SVILLGRHSLFHPEDTGQVFQVSHSFPHPLYDMSLLKNRFLRPGDSSHDMLLRLSEPAELTDAVKVMD  
 LPTQEPALGTTTCYASGWSIEPEEFLTPKKLQCVDLHVISNDVCAQVHPQKVTKFMLCAGRWTGGKSTCS  
 WVILITELTMPALPMVLHGSLVPWRGGV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001030047

**ORF Size:** 714 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_001030047.1](#), [NP\\_001025218.1](#)

**RefSeq Size:** 1906 bp

**RefSeq ORF:** 717 bp

**Locus ID:** 354

**UniProt ID:** [P07288](#)

**Cytogenetics:** 19q13.33

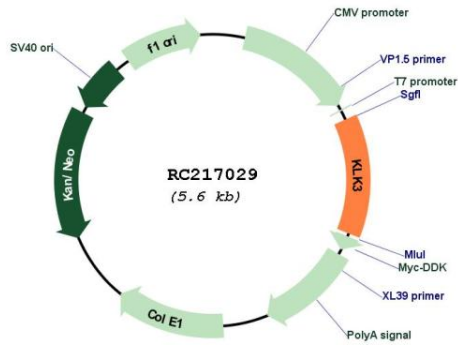
**Protein Families:** Druggable Genome, Protease, Secreted Protein

**Protein Pathways:** Pathways in cancer, Prostate cancer

**MW:** 26.32 kDa

**Gene Summary:** Kallikreins are a subgroup of serine proteases having diverse physiological functions. Growing evidence suggests that many kallikreins are implicated in carcinogenesis and some have potential as novel cancer and other disease biomarkers. The gene is one of the fifteen kallikrein subfamily members located in a cluster on chromosome 19. It encodes a single-chain glycoprotein, a protease which is synthesized in the epithelial cells of the prostate gland, and is present in seminal plasma. It is thought to function normally in the liquefaction of seminal coagulum, presumably by hydrolysis of the high molecular mass seminal vesicle protein. The serum level of this protein, called PSA in the clinical setting, is useful in the diagnosis and monitoring of prostatic carcinoma. Alternate splicing of this gene generates several transcript variants encoding different isoforms. [provided by RefSeq, Dec 2019]

Product images:



Circular map for RC217029