

Product datasheet for RC202740

Prostate Specific Antigen (KLK3) (NM_001648) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Prostate Specific Antigen (KLK3) (NM_001648) 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:	>RC202740 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCCGATCGCC

ATGTGGGTCCCGTTGTCTTCCTCACCTGTCCGTGACGTGGATTGGCGCTGCGCCCTCATCTGTCTC
GGATTGTGGGAGGCTGGGAGTGCAGAGAAGCATTCCCAACCCTGGCAGGTGCTTGTGGCTCTCGTGGCAG
GGCAGTCTGCGGCGGTGTCTGGTGCACCCCCAGTGGTCTCACAGCTGCCACTGCATCAGGAACAAA
AGCGTGATCTTGCTGGGTCGGCACAGCTTGTTCATCCTGAAGACACAGGCCAGGTATTTAGGTGACGC
ACAGCTTCCCACACCCGCTCTACGATATGAGCCTCCTGAAGAATCGATTCTCAGGCCAGGTGATGACTC
CAGCCACGACCTCATGCTGCTCCGCTGTGAGAGCCTGCCGAGCTCACGGATGCTGTGAAGTGCATGGAC
CTGCCACCCAGGAGCCAGCACTGGGGACCACCTGCTACGCCTCAGGCTGGGGCAGCATTGAACCAGAGG
AGTTCTTGACCCAAAGAACTTCAGTGTGTGGACCTCCATGTTATTTCCAATGACGTGTGTGCGCAAGT
TCACCCTCAGAAGGTGACCAAGTTCATGCTGTGTGCTGGACGCTGGACAGGGGGCAAAGCACCTGCTCG
GGTATTCTGGGGGCCACTTGTCTGTAATGGTGTGCTTCAAGGTATCACGTGATGGGGCAGTGAACCAT
GTGCCCTGCCGAAAGGCCTTCCCTGTACACCAAGGTGGTGCATTACCGAAGTGGATCAAGGACACCAT
CGTGCCCAACCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >RC202740 protein sequence
 Red=Cloning site Green=Tags(s)

MWVPVFLTLSVTWIGAAPLILSRIVGGWECEKHSQPWQVLVASRGRAVCGGVLVHPQWVLTAAHCIRNK
 SVILLGRHSLFHPEDTGQVFQVSHSFPHPLYDMSLLKNRFLRPGDDSSHDLMLLRLSEPAELTDAVKVMD
 LPTQEPALGTTTCYASGWSIEPEEFLTPKKLQCVDLHVISNDVCAQVHPQKVTKFMLCAGRWTGGKSTCS
 GDSGGPLVCNGVLQGITSWGSEPCALPERPSLYTKVVHYRKWKIKDTIVANP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6079_d04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001648

ORF Size: 783 bp

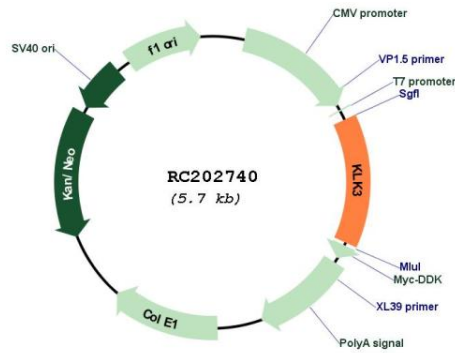
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

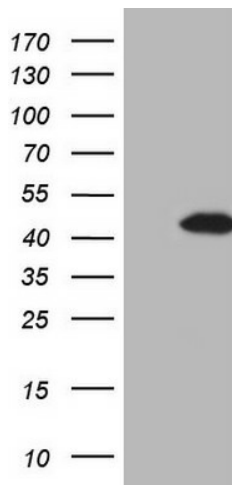
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001648.2 , NP_001639.1
RefSeq Size:	1464 bp
RefSeq ORF:	786 bp
Locus ID:	354
UniProt ID:	P07288
Cytogenetics:	19q13.33
Domains:	Tryp_SPc
Protein Families:	Druggable Genome, Protease, Secreted Protein
Protein Pathways:	Pathways in cancer, Prostate cancer
MW:	28.7 kDa
Gene Summary:	<p>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]</p>

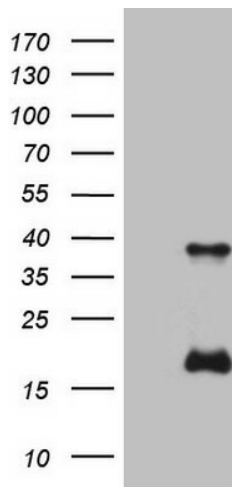
Product images:



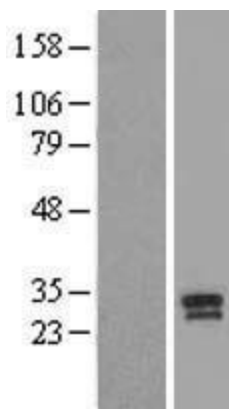
Circular map for RC202740



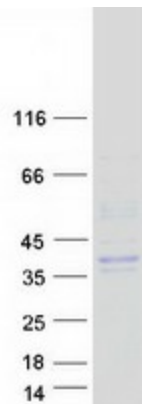
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY KLK3 (RC202740, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-KLK3 (1:100) ([TA808293]). Positive lysates [LY419823] (100ug) and [LC419823] (20ug) can be purchased separately from OriGene.



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY KLK3 (Cat# RC202740, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-KLK3 (Cat# [TA808357])(1:2000). Positive lysates [LY419823] (100ug) and [LC419823] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419823]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202740 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KLK3 protein (Cat# [TP302740]). The protein was produced from HEK293T cells transfected with KLK3 cDNA clone (Cat# RC202740) using MegaTran 2.0 (Cat# [TT210002]).