

Product datasheet for **RG202740**

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:	TurboGFP
Symbol:	Prostate Specific Antigen
Synonyms:	APS; hK3; KLK2A1; PSA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG202740 representing NM_001648 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**

ATGTGGGTCCCGTTGTCTTCCTCACCCGTCCGTGACGTGGATTGGCGCTGCGCCCTCATCTGTCTC
GGATTGTGGGAGGCTGGGAGTGCAGAAGCATTCCAACCCTGGCAGGTGCTTGTGGCTCTCGTGGCAG
GGCAGTCTGCGGCGGTGTCTGGTGCACCCCAAGTGGTCTCACAGCTGCCACTGCATCAGGAACAAA
AGCGTGATCTTGCTGGGTCGGCACAGCTTGTTCATCCTGAAGACACAGGCCAGGTATTTCAAGTACGCC
ACAGCTTCCCACACCCGCTCTACGATATGAGCCTCCTGAAGAATCGATTCTCAGGCCAGGTGATGACTC
CAGCCACGACCTCATGCTGCTCCGCTGTGAGAGCCTGCCGAGCTCACGGATGCTGTGAAGTGCATGGAC
CTGCCACCCAGGAGCCAGCACTGGGGACCACCTGCTACGCCTCAGGCTGGGGCAGCATTGAACCAGAGG
AGTTCTTGACCCCAAAGAACTTCAGTGTGTGGACCTCCATGTTATTTCCAATGACGTGTGTGCGCAAGT
TCACCCTCAGAAGGTGACCAAGTTCATGCTGTGTGCTGGACGCTGGACAGGGGGCAAAGCACCTGCTCG
GGTATTCTGGGGGCCCACTTGTCTGTAATGGTGTGCTTCAAGGTATCACGTGATGGGGCAGTGAACCAT
GTGCCCTGCCGAAAGGCCTTCCCTGTACACCAAGGTGGTGCATTACCGGAAGTGGATCAAGGACACCAT
CGTGGCCAACCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG202740 representing NM_001648
 Red=Cloning site Green=Tags(s)

MWVPVFLTLSVTWIGAAPLILSRIVGGWECEKHSQPWQVLVASRGRAVCGGVLVHPQWVLTAAHCIRNK
 SVILLGRHSLFHPEDTGQVFQVSHSFPHPLYDMSLLKNRFLRPGDDSSHDMLLRLSEPAELTDAVKVMD
 LPTQEPALGTTTCYASGWGSIPEEFLTPKKLQCVDLHVISNDVCAQVHPQKVTKFMLCAGRWTGGKSTCS
 GDSGGPLVCNGVLQGITSWGSEPCALPERPSLYTKVVHYRKWKIKDTIVANP

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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:

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_001648.2](#), [NP_001639.1](#)

RefSeq Size: 1464 bp

RefSeq ORF: 786 bp

Locus ID: 354

UniProt ID: [P07288](#)

Cytogenetics: 19q13.33

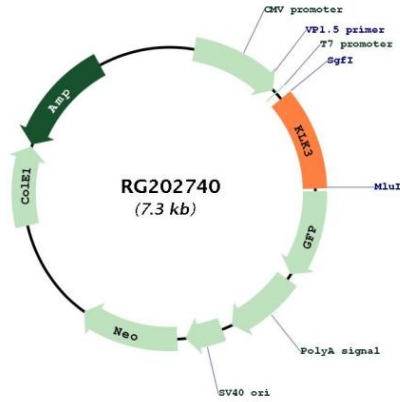
Domains: Tryp_SPC

Protein Families: Druggable Genome, Protease, Secreted Protein

Protein Pathways: Pathways in cancer, Prostate cancer

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 RG202740