

Product datasheet for **RG202667**

Kallikrein 2 (KLK2) (NM_005551) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kallikrein 2 (KLK2) (NM_005551) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KLK2
Synonyms:	hGK-1; hK2; KLK2A2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG202667 representing NM_005551 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGGGACCTGGTTCTCTCCATCGCCTTGCTGTGGGGTGCCTGGTGGCGTGGCCCTCATCCAGTCTC
GGATTGTGGGAGGCTGGGAGTGTGAGAAGCATTCCAACCCTGGCAGGTGGCTGTGTACAGTCATGGATG
GGCACACTGTGGGGGTGCTCTGGTGCACCCCAAGTGGTGTGTACAGTGGCTGTGTACAGTGGATG
AGCCAGGTCTGGCTGGTGGTGGCACAACCTGTTGAGCCTGAAGACACAGGCCAGAGGGTCCCTGTCAGCC
ACAGCTTCCCACACCCGCTCTACAATATGAGCCTTCTGAAGCATCAAAGCCTTAGACCAGATGAAGACTC
CAGCCATGACCTCATGCTGCTTCGCCTGTGAGCCTGCCAAGATCACAGATGTTGTGAAGTCCCTGGGC
CTGCCACCCAGGAGCCAGCACTGGGGACCACCTGCTACGCCTCAGGCTGGGGCAGCATCGAACCAGAGG
AGTTCTTGCGCCCCAGGAGTCTTCAGTGTGTGAGCCTCCATCTCCTGTCCAATGACATGTGTGCTAGAGC
TACTCTGAGAAGGTGACAGAGTTCATGTTGTGTGCTGGGCTCTGGACAGGTGGTAAAGACACTTGTGGG
GGTATTCTGGGGTCCACTTGTCTGTAATGGTGTGCTTCAAGGTATCACATCATGGGGCCCTGAGCCAT
GTGCCCTGCCTGAAAAGCCTGCTGTGTACACCAAGGTGGTGCATTACCGAAGTGGATCAAGGACACCAT
CGCAGCCAACCCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG202667 representing NM_005551
 Red=Cloning site Green=Tags(s)

MWDLVLSIALSVGCTGAVPLIQSRIVGGWECEKHSQPWQVAVYSHGWAHCGGVLVHPQWVLTAAHCLKKN
 SQVWLGGRHNLFEPEDTGQRVPVSHSFPHPLYNMSLLKHQSLRPDEDESSHDLMLLRLSEPAKITDVVKVLG
 LPTQEPALGTTTCYASGWGSIPEEFLRPRSLQCVSLHLLSNDMCARAYSEKVTDFMLCAGLWTGGKDTCCG
 GDSGGPLVCNGVLQGITSWGPEPCALPEKPAVYTKVVHYRKWKIKDTIAANP

TRTRPLE - GFP Tag - V

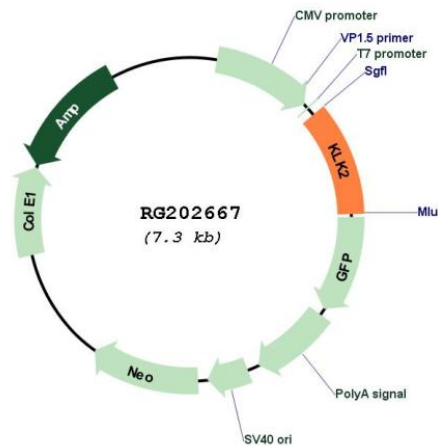
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_005551

ORF Size: 783 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_005551.2](#)

RefSeq Size: 2855 bp

RefSeq ORF: 786 bp

Locus ID: 3817

UniProt ID: [P20151](#)

Cytogenetics: 19q13.33

Domains: Tryp_SPc

Protein Families: Druggable Genome, Protease

Gene Summary: This gene encodes a member of the granular kallikrein protein family. Kallikreins are a subgroup of serine proteases that are clustered on chromosome 19. Members of this family are involved in a diverse array of biological functions. The protein encoded by this gene is a highly active trypsin-like serine protease that selectively cleaves at arginine residues. This protein is primarily expressed in prostatic tissue and is responsible for cleaving pro-prostate-specific antigen into its enzymatically active form. This gene is highly expressed in prostate tumor cells and may be a prognostic maker for prostate cancer risk. Alternate splicing results in both coding and non-coding transcript variants. [provided by RefSeq, Jan 2012]