

Product datasheet for **RG229983**

Kininogen 1 (KNG1) (NM_001166451) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kininogen 1 (KNG1) (NM_001166451) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KNG1
Synonyms:	BDK; BK; HAE6; HMWK; KNG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG229983 representing NM_001166451 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAACTAATTACCATCCTTTTCCTCTGCTCCAGGCTGCTACTAAGTTTAACCCAGGAATCACAGTCCG
AGGAAATTGACTGCAATGACAAGGATTTATTTAAAGCTGTGGATGCTGCTCTGAAGAAATATAACAGTCA
AAACCAAAGTAACAACCAAGTTTGTATTGTACCGCATAACTGAAGCCACTAAGACGGTTGGCTCTGACACG
TTTTATTCCTTCAAGTACGAAATCAAGGAGGGGATTGCTCTGTTCAAAGTGGCAAACCTGGCAGGACT
GTGAGTACAAGGATGCTGCAAAAGCAGCCACTGGAGAATGCACGGCAACCGTGGGAAGAGGAGCAGTAC
GAAATTCCTGGCTACCCAGACCTGCCAGATTACTCCAGCCGAGGGCCCTGTGGTGACAGCCAGTAC
GACTGCCTCGGCTGTGTGCATCCTATATCAACGCAGAGCCAGACCTGGAGCCCATTCTGAGACACGGCA
TTCAGTACTTTAACAACAACACTCAACATTCCTCCCTCTTCATGCTTAATGAAGTAAAACGGGCCAAAAG
ACAGGATACCGGTGAATGTACAGATAATGCATACATCGATATTACGCTACGAATTGCTTCCTTCTCACAG
AACTGTGACATTTATCCAGGGAAGGATTTGTACAACCACCTACCAAGATTTGCGTGGGCTGCCCCAGAG
ATATACCCACCAACAGCCAGAGCTGGAGGAGACTGACTCACACCATCACAAGCTTAATGCAGAGAA
TAACGCAACTTTCTATTTCAAGATTGACAATGTGAAAAAGCAAGAGTACAGTGGTGGCTGGCAAGAAA
TATTTTATTGACTTCGTGGCCAGGAAACCACATGTTCCAAGGAAAGTAATGAAGAGTTGACCGAAAGCT
GTGAGACCAAAAACTTGCCAAAAGCCTAGATTGCAACGCTGAAGTTTATGTGGTACCCTGGGAGAAAA
AATTTACCTACTGTCAACTGTCAACCACTGGGAATGATCTCACTGATGAAAAGGCTCCAGTTTTTTCA
CCTTTCCGATCATCACGAATAGGGGAAATAAAGAAGAAACAAGTACCTAACGATGAGTACCTAACGATGAGT
AGGGTCGACCCCAAGGCAGGGCCAGAGCCAGCATCTGAGAGGGAGGTCTCT

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG229983 representing NM_001166451
 Red=Cloning site Green=Tags(s)

MKLITILFLCSRLLLSLTQESQSEEIDCNDKDLFAVDAALKKYNSQNQSNQFVLYRITEATKTVGSDT
 FYSFKYEIKEGDCPVQSGKTWQDCEYKDAAKAATGECTATVGKRSSTKFSVATQTCQITPAEGPVVTAQY
 DCLGCVHPISTQSPDLEPILRHGIQYFNNNTQHSSLFMLEVVKRAQRQDTGECTDNAYIDIQLRIASFQ
 NCDIYPGKDFVQPPTKICVGCPRDIPTNSPELEETLTHITKLNNAENNAFYFKIDNVKKARVQVVAGKK
 YFIDFVARETTCSKESNEELTESCETKKGQSLDCNAEVYVVPWEKKIYPTVNCQPLGMISLMKRPPGFS
 PFRSSRIGEIKEETTSHLRSCYKGRPPKAGAEPASEREVS

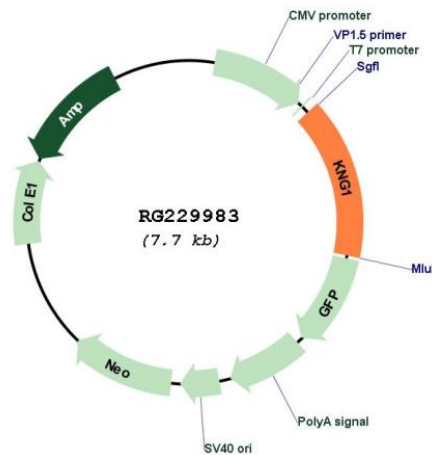
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001166451

ORF Size:	1173 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.
RefSeq:	NM_001166451.2
RefSeq Size:	2035 bp
RefSeq ORF:	1176 bp
Locus ID:	3827
UniProt ID:	P01042
Cytogenetics:	3q27.3
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	Complement and coagulation cascades
Gene Summary:	This gene uses alternative splicing to generate two different proteins- high molecular weight kininogen (HMWK) and low molecular weight kininogen (LMWK). HMWK is essential for blood coagulation and assembly of the kallikrein-kinin system. Also, bradykinin, a peptide causing numerous physiological effects, is released from HMWK. Bradykinin also functions as an antimicrobial peptide with antibacterial and antifungal activity. In contrast to HMWK, LMWK is not involved in blood coagulation. Infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) reduces or depletes angiotensin converting enzyme 2 (ACE2), which results in an increase in levels of des-Arg(9)-bradykinin, a bioactive metabolite of bradykinin that is associated with lung injury and inflammation. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2020]