

Product datasheet for **RG208879**

Kininogen 1 (KNG1) (NM_000893) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kininogen 1 (KNG1) (NM_000893) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kininogen 1
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:	>RG208879 representing NM_000893 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAACTAATTACCATCCTTTTCCTCTGCTCCAGGCTACTACTAAGTTTAACCCAGGAATCACAGTCCG
AGGAAATTGACTGCAATGACAAGGATTTATTTAAAGCTGTGGATGCTGCTCTGAAGAAATATAACAGTCA
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ACATCGATATTCAGCTACGAATTGCTTCCTTCTCACAGAAGTGTGACATTTATCCAGGGAAGGATTTTGT
ACAACCACCTACCAAGATTTGCGTGGGCTGCCAGAGATATACCCACCAACAGCCAGACTGGAGGAG
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ATGTTCCAAGGAAAGTAATGAAGAGTTGACCGAAAGCTGTGAGACCAAAAACTGGCCAAAGCCTAGAT
TGCAACGCTGAAGTTTATGTGGTACCCTGGGAGAAAAAATTTACCCTACTGTCAACTGTCAACCACTGG
GAATGATCTCACTGATGAAAAGGCTCCAGGTTTTTACCTTTCCGATCATCACGAATAGGGGAAATAAA
AGAAGAAACAAGTACCTAAGTCTCGAGTACAAGGTCGACCCCAAAGGCAGGGGCAGAGCCA
GCATCTGAGAGGGAGGTCTCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG208879 representing NM_000893
 Red=Cloning site Green=Tags(s)

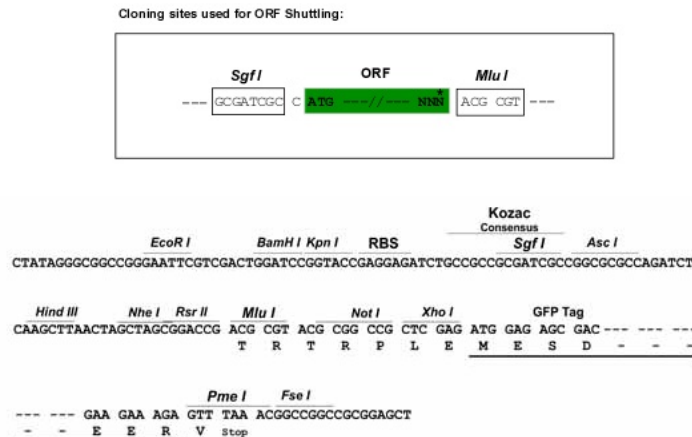
MKLITILFLCSRLLLSLTQESQSEEIDCNDKDLFKAVIDAALKKYNSQNQSNQFVLYRITEATKTVGSDT
 FYSFKYEIKEGDPCVQSGKTWQDCEYKDAAKAATGECTATVVKRSSTKFSVATQTCQITPAEGPVVTAQY
 DCLGCVHPITSTQSPDLEPILRHGIQYFNNNTQHSSLFMLEVVKRAQRQVVAGLNFRMTYSIVQTNSKEN
 FLFLTPDCKSLWNGDTGECTDNAYIDIQLRIASFQNCDIYPGKDFVQPPTKICVGCPRDIPTNSPELEE
 TLTHITITKLNNAENNTAFYFKIDNVKKARVQVVAGKKYFIDFVARETTCSKESNEELTESCETKKGQSLD
 CNAEVYVVPWEKKIYPTVNCQPLGMIISLMKRPPGFSFRSSRIGEIKEETTSHLRSCHEYKGRPPKAGAEP
 ASEREVS

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_000893

ORF Size: 1281 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_000893.2](#), [NP_000884.1](#)

RefSeq Size: 1668 bp

RefSeq ORF: 1284 bp

Locus ID: 3827

UniProt ID: [P01042](#)

Cytogenetics: 3q27.3

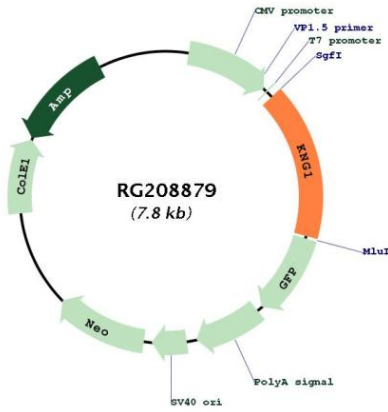
Domains: CY

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]

Product images:



Circular map for RG208879