

Product datasheet for **RG213143**

Factor VII (F7) (NM_019616) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Factor VII (F7) (NM_019616) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Factor VII
Synonyms:	SPCA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG213143 representing NM_019616
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTCTCCAGGCCCTCAGGCTCCTCTGCCTTCTGCTTGGGCTTCAGGGCTGCCTGGTGCAGTCTTCG
 TAACCCAGGAGGAAGCCACGGCGTCTGCACCGCGCCGGCGGCCAACGCGTTCTGGAGGAGCTGCG
 GCCGGGCTCCCTGGAGAGGGAGTCAAGGAGGAGCAGTCTCCTTCGAGGAGGCCGGGAGATCTTCAAG
 GACGCGGAGAGGACGAAGCTGTTCTGGATTTCTTACAGTGATGGGGACCAGTGTGCCTCAAGTCCATGCC
 AGAATGGGGGCTCCTGCAAGGACCAGCTCCAGTCTATATCTGCTTCTGCCTCCCTGCCTTCGAGGGCCG
 GAACTGTGAGACGCACAAGGATGACCAGCTGATCTGTGTGAACGAGAACGGCGGTGTGAGCAGTACTGC
 AGTGACCACACGGGCACCAAGCGCTCCTGTGGTCCACGAGGGGTACTCTGTGTCGAGACGGGGTGT
 CCTGCACACCCACAGTTGAATATCCATGTGAAAAATACCTATTCTAGAAAAAGAAATGCCAGCAAACC
 CCAAGGCCGAATTGTGGGGGCAAGGTGTGCCCAAAGGGGAGTGTCCATGGCAGGTCTGTTGTTGGTG
 AATGGAGCTCAGTTGTGTGGGGGACCCGATCAACACCATCTGGGTGGTCTCCGCGGCCACTGTTTCG
 ACAAAATCAAGAACTGGAGGAACCTGATCGCGGTGCTGGGCGAGCACGACCTCAGCGAGCACGACGGGA
 TGAGCAGAGCCGGCGGGTGGCGCAGTCAATCCCCAGCACGTACGTCGCCGGCACCACCAACCACGAC
 ATCGCGCTGCTCCGCTGCACCAGCCCGTGGTCTCACTGACCATGTGGTGCCTCTGCCTGCCCGAAC
 GGACGTTCTCTGAGAGGACGCTGGCCTTCGTGCGCTTCTCATTGGTCAGCGGCTGGGGCCAGCTGCTGGA
 CCGTGGCGCCACGGCCCTGGAGCTCATGGTGTCAACGTGCCCGGCTGATGACCAGGACTGCCTGCAG
 CAGTACGGAAGTGGGAGACTCCCAAATATCACGGAGTACATGTTCTGTGCCGGCTACTCGGATGGCA
 GCAAGGACTCCTGCAAGGGGACAGTGGAGGCCACATGCCACCCACTACCGGGCACGTGGTACCTGAC
 GGGCATCGTCAGCTGGGCGCAGGGCTGCACAACCGTGGGCCACTTTGGGTGTACACCAGGTCTCCAG
 TACATCGAGTGGCTGAAAAGCTCATGCCTCAGAGCCACGCCAGGAGTCTCTGCGAGCCCCATTTCC
 CC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

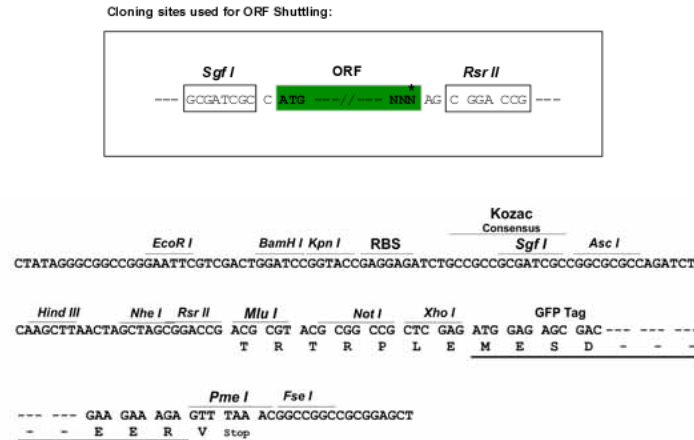
>RG213143 representing NM_019616
 Red=Cloning site Green=Tags(s)

MYSQALRLLCLLLGLQGCLAAVFVTQEEAHGVLHRRRRANAFLEELRPGSLERECKEEQCSFEEAREIFK
 DAERTKLFWISYSDGDQCASSPCQNGGSKDQLQSYICFCLPAFEGRNCETHKDDQLICVNEGGCEQYC
 SDHTGTRSCRCHEGYSLLADGVSTPTVEYPCGKIPILEKRNASKPQGRIVGGKVC PKGECWPQVLLLV
 NGAQLCGGTLINTIWWVSAAHCFDKIKNWRNLI AVLGEHDLSEHDGDEQSRVAQVIIPSTYVPGTTNHD
 IALLRLHQPVVLTDHVVPLCLPERTF SERTLAFVRFSLVSGWGQLLDRGATALEMLVNLNVPRLMTQDCLQ
 QSRKVGDSFNITEYMFACAGYS DGSKDCKGDSGGPHATHYRGTWYLTGI VSWGQCATVGHF GYVTRVSQ
 YIEWLQKLMRSEPRPGVLLRAPFP

SGPTRRRLE - GFP Tag - V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_019616

ORF Size: 1332 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_019616.1](#), [NP_062562.1](#)

RefSeq Size: 2412 bp

RefSeq ORF: 1335 bp

Locus ID: 2155

UniProt ID: [P08709](#)

Cytogenetics: 13q34

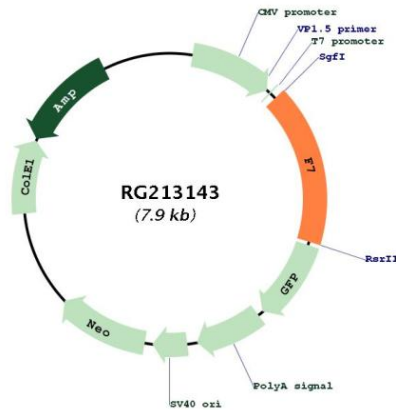
Domains: GLA, Tryp_SPc, EGF_CA, EGF, EGF

Protein Families: Druggable Genome, Protease

Protein Pathways: Complement and coagulation cascades

Gene Summary: This gene encodes coagulation factor VII which is a vitamin K-dependent factor essential for hemostasis. This factor circulates in the blood in a zymogen form, and is converted to an active form by either factor IXa, factor Xa, factor XIIa, or thrombin by minor proteolysis. Upon activation of the factor VII, a heavy chain containing a catalytic domain and a light chain containing 2 EGF-like domains are generated, and two chains are held together by a disulfide bond. In the presence of factor III and calcium ions, the activated factor then further activates the coagulation cascade by converting factor IX to factor IXa and/or factor X to factor Xa. Defects in this gene can cause coagulopathy. Alternative splicing results in multiple transcript variants encoding different isoforms that may undergo similar proteolytic processing to generate mature polypeptides. [provided by RefSeq, Aug 2015]

Product images:



Circular map for RG213143