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Product datasheet for RG214841

Factor VII (F7) (NM_000131) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Factor VII (F7) (NM_000131) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	F7
Synonyms:	SPCA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>RG214841 representing NM_000131
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTCTCCCAGGCCCTCAGGCTCCTCTGCCTTCTGCTTGGGCTTCAGGGCTGCCTGGCTGCAGGCGGGG
TCGCTAAGGCCTCAGGAGGAGAAACACGGGACATGCCGTGGAAGCCGGGGCCTCACAGAGTCTTCGTAAC
CCAGGAGGAAGCCCACGGCGTCCTGCACCGGCGCCGGCGCGCCAACGCGTTCCTGGAGGAGCTGCGGCCG
GGCTCCCTGGAGAGGGAGTGCAAGGAGGAGCAGTGCTCCTTCGAGGAGGCCCGGGAGATCTTCAAGGACG
CGGAGAGGACGAAGCTGTTCTGGATTTCTTACAGTGATGGGGACCAGTGTGCCTCAAGTCCATGCCAGAA
TGGGGGCTCCTGCAAGGACCAGCTCCAGTCCTATATCTGCTTCTGCCTCCCTGCCTTCGAGGGCCGGAAC
TGTGAGACGCACAAGGATGACCAGCTGATCTGTGTGAACGAGAACGGCGGCTGTGAGCAGTACTGCAGTG
ACCACACGGGCACCAAGCGCTCCTGTCGGTGCCACGAGGGGTACTCTCTGCTGGCAGACGGGGTGTCCTG
CACACCCACAGTTGAATATCCATGTGGAAAAATACCTATTCTAGAAAAAAGAAATGCCAGCAAACCCCAA
GGCCGAATTGTGGGGGGCAAGGTGTGCCCCAAAGGGGAGTGTCCATGGCAGGTCCTGTTGTTGGTGAATG
GAGCTCAGTTGTGTGGGGGGACCCTGATCAACACCATCTGGGTGGTCTCCGCGGCCCACTGTTTCGACAA
AATCAAGAACTGGAGGAACCTGATCGCGGTGCTGGGCGAGCACGACCTCAGCGAGCACGACGGGGATGAG
CAGAGCCGGCGGGTGGCGCAGGTCATCATCCCCAGCACGTACGTCCCGGGCACCACCAACCACGACATCG
CGCTGCTCCGCCTGCACCAGCCCGTGGTCCTCACTGACCATGTGGTGCCCCTCTGCCTGCCCGAACGGAC
GTTCTCTGAGAGGACGCTGGCCTTCGTGCGCTTCTCATTGGTCAGCGGCTGGGGCCAGCTGCTGGACCGT
GGCGCCACGGCCCTGGAGCTCATGGTCCTCAACGTGCCCCGGCTGATGACCCAGGACTGCCTGCAGCAGT
CACGGAAGGTGGGAGACTCCCCAAATATCACGGAGTACATGTTCTGTGCCGGCTACTCGGATGGCAGCAA
GGACTCCTGCAAGGGGGACAGTGGAGGCCCACATGCCACCCACTACCGGGGCACGTGGTACCTGACGGGC
ATCGTCAGCTGGGGCCAGGGCTGCGCAACCGTGGGCCACTTTGGGGTGTACACCAGGGTCTCCCAGTACA
TCGAGTGGCTGCAAAAGCTCATGCGCTCAGAGCCACGCCCAGGAGTCCTCCTGCGAGCCCCATTTCCC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

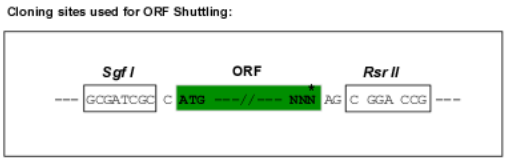
>RG214841 representing NM_000131
Red=Cloning site Green=Tags(s)

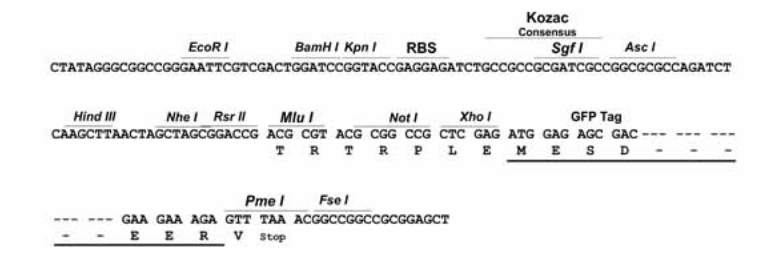
MVSQALRLLCLLLGLQGCLAAGGVAKASGGETRDMPWKPGPHRVFVTQEEAHGVLHRRRRANAFLEELRP
GSLERECKEEQCSFEEAREIFKDAERTKLFWISYSDGDQCASSPCQNGGSCKDQLQSYICFCLPAFEGRN
CETHKDDQLICVNENGGCEQYCSDHTGTKRSCRCHEGYSLLADGVSCTPTVEYPCGKIPILEKRNASKPQ
GRIVGGKVCPKGECPWQVLLLVNGAQLCGGTLINTIWVVSAAHCFDKIKNWRNLIAVLGEHDLSEHDGDE
QSRRVAQVIIPSTYVPGTTNHDIALLRLHQPVVLTDHVVPLCLPERTFSERTLAFVRFSLVSGWGQLLDR
GATALELMVLNVPRLMTQDCLQQSRKVGDSPNITEYMFCAGYSDGSKDSCKGDSGGPHATHYRGTWYLTG
IVSWGQGCATVGHFGVYTRVSQYIEWLQKLMRSEPRPGVLLRAPFP

SGPTRTRRLE - GFP Tag - V

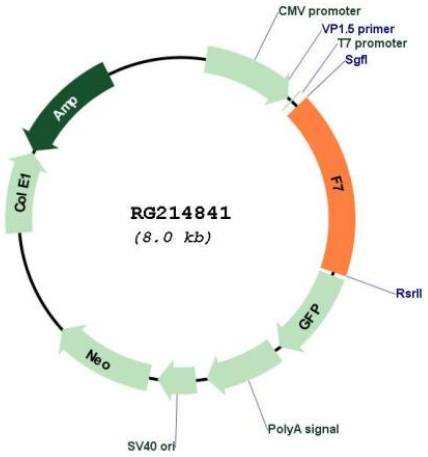
Restriction Sites: SgfI-RsrII

Cloning Scheme:





Plasmid Map:



ACCN: NM_000131

ORF Size: 1398 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_000131.4, NP_000122.1
RefSeq Size:	3144 bp
RefSeq ORF:	1401 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]