

Product datasheet for **RG208506**

Factor X (F10) (NM_000504) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Factor X (F10) (NM_000504) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Factor X
Synonyms:	FX; FXA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG208506 representing NM_000504
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGCGCCACTGCACCTCGTCTGCTCAGTGCCTCCCTGGCTGGCCTCCTGCTGCTCGGGAAAGTC
 TGTTATCCGCAGGGAGCAGGCCAACAAACATCCTGGCGAGGGTCACGAGGGCCAATTCCTTTCTGAAGA
 GATGAAGAAAGGACACCTCGAAAGAGAGTGCATGGAAGAGACCTGCTCATACGAAGAGGCCCGCGAGGTC
 TTTGAGGACAGCGACAAGACGAATGAATTCGGAATAAATACAAAGATGGCGACCAGTGTGAGACCAGTC
 CTTGCCAGAACCAGGGCAAATGTAAAGACGGCCTCGGGGAATACACCTGCACCTGTTTAGAAGGATTCGA
 AGGCAAAAAGTGAATTATTCACACGGAAGCTCTGCAGCCTGGACAACGGGGACTGTGACCAGTCTCTGC
 CACGAGGAACAGAAGTCTGTGGTGTCTCCTGCGCCCGGGTACACCCTGGCTGACAACGGCAAGGCCT
 GCATCCACAGGGCCCTACCCCTGTGGAAACAGACCCTGGAACGCAGGAAGAGGTGAGTGGCCAGGC
 CACCAGCAGCAGGGGGAGGCCCTGACAGCATCATGGAAGCCATATGATGCAGCCGACTGGACCCC
 ACCGAGAACCCCTTCGACTGCTTGACTTCAACCAGACGAGCCTGAGAGGGGCGACAACAACCTACCA
 GGATCGTGGGAGGCCAGGAATGCAAGGACGGGGAGTGTCCCTGGCAGGCCTGCTCATCAATGAGAAAA
 CGAGGGTTTCTGTGGTGAAGTATTCTGAGCGAGTTCTACATCCTAACGGCAGCCCACTGTCTCTACAA
 GCCAAGAGATTCAAGGTGAGGTAGGGGACCGGAACACGGAGCAGGAGGAGGGCGGTGAGGCGGTGCACG
 AGGTGGAGGTGGTCAAGCACAACCGGTTTCAAAAGGAGACCTATGACTTCGACATCGCCGTGCTCCG
 GCTCAAGACCCCATCACCTCCGCATGAACGTGGCGCCTGCCTGCCTCCCGAGCGTACTGGGCGGAG
 TCCACGCTGATGACGCAGAAGACGGGATTGTGAGCGGCTTCGGGCGCACCCACGAGAAGGGCCGGCAGT
 CCACAGGCTCAAGATGCTGGAGGTGCCCTACGTGGACCGCAACAGCTGCAAGCTGTCCAGCAGCTCAT
 CATCACCCAGAACATGTTCTGTGCCGGCTACGACACCAAGCAGGAGGATGCCTGCCAGGGGACAGCGGG
 GGCCCGCACGTCACCCGCTTCAAGGACACCTACTTCGTGACAGGCATCGTCAGCTGGGGAGAGGGTGTG
 CCCGTAAGGGGAAGTACGGGATCTACACCAAGGTACCGCCTTCTCAAGTGGATCGACAGGTCCATGAA
 AACCGGGGCTTGCCCAAGGCCAAGAGCCATGCCCGGAGGTCATAACGTCCTCTCCATTAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG208506 representing NM_000504
 Red=Cloning site Green=Tags(s)

MGRPLHLVLLSASLAGLLLLGESLFIIRREQANNILARVTRANSFLEEMKKGHLERECMEETCSYEEAREV
 FEDSDKTNEFWNKYKGDQCETSPCQNQKCKDGLGEYTCLEGFEGKNCELFTRKLCSLDNGDCDQFC
 HEEQNSVVCSCARGYTLADNGKACIPTGPYPCGKQTLERRKRSVAQATSSSGEAPDSITWKPYDAADLDP
 TENPFDLLDFNQTPERGDNNLTRIVGGQECKDGECPWQALLINEENEGFCGGTILSEFYILTAHCLYQ
 AKRFKVRVGDNRTEQEEGGEAVHEVEVVIKHNRFTKETYDFDIAVLRRLKTPITFRMNVAPACLPERDWA
 STLMTQKTGIVSGFGRTHEKGRQSTRMKMLEVPYVDRNSCKLSSSFIITQNMFCAGYDTKQEDACQGD
 SGPVTRFKDITYFTGIVSWGEGCARKGKYGIYTKVTAFLKWIDRSMKTRGLPKAKSHAPEVITSSPLK

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_000504

ORF Size: 1464 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_000504.3](#), [NP_000495.1](#)

RefSeq Size: 1560 bp

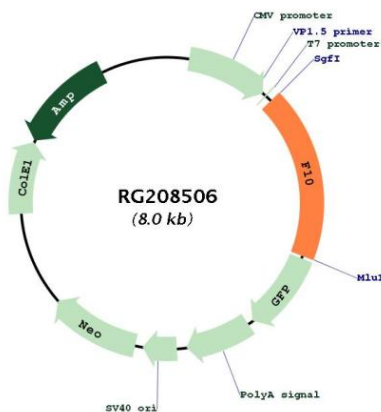
RefSeq ORF: 1467 bp

Locus ID: 2159

UniProt ID: [P00742](#)

Cytogenetics:	13q34
Domains:	GLA, Tryp_SPc, EGF_CA, EGF, EGF
Protein Families:	Druggable Genome, Protease, Transmembrane
Protein Pathways:	Complement and coagulation cascades
Gene Summary:	<p>This gene encodes the vitamin K-dependent coagulation factor X of the blood coagulation cascade. This factor undergoes multiple processing steps before its preproprotein is converted to a mature two-chain form by the excision of the tripeptide RKR. Two chains of the factor are held together by 1 or more disulfide bonds; the light chain contains 2 EGF-like domains, while the heavy chain contains the catalytic domain which is structurally homologous to those of the other hemostatic serine proteases. The mature factor is activated by the cleavage of the activation peptide by factor IXa (in the intrinsic pathway), or by factor VIIa (in the extrinsic pathway). The activated factor then converts prothrombin to thrombin in the presence of factor Va, Ca²⁺, and phospholipid during blood clotting. Mutations of this gene result in factor X deficiency, a hemorrhagic condition of variable severity. 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]</p>

Product images:



Circular map for RG208506