

Product datasheet for **RC208506**

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

Product data:

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|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Factor X (F10) (NM_000504) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Factor X |
| Synonyms: | FX; FXA |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



[View online »](#)

ORF Nucleotide Sequence:

>RC208506 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGCGCCACTGCACCTCGTCTGCTCAGTGCCTCCCTGGCTGGCCTCCTGCTGCTCGGGAAAGTC
 TGTTATCCGCAGGGAGCAGGCCAACAAACATCCTGGCGAGGGTCACGAGGGCCAATTCCTTTCTGAAGA
 GATGAAGAAAGGACACCTCGAAAGAGAGTGCATGGAAGAGACCTGCTCATACGAAGAGGCCCGGAGGTC
 TTTGAGGACAGCGACAAGACGAATGAATTCGGAATAAATAAAAGATGGCGACCAGTGTGAGACCAGTC
 CTTGCCAGAACCAGGGCAAATGTAAAGACGGCCTCGGGGAATACACCTGCACCTGTTTAGAAGGATTCGA
 AGGCAAAAAGTGAATTATTCACACGGAAGCTCTGCAGCCTGGACAACGGGGACTGTGACCAGTCTGTC
 CACGAGGAACAGAAGTCTGTGGTGTGCTCCTGCGCCCGGGTACACCCTGGCTGACAACGGCAAGGCCCT
 GCATCCACAGGGCCCTACCCCTGTGGAAACAGACCCTGGAACGCAGGAAGAGGTGAGTGGCCAGGC
 CACCAGCAGCAGGGGGAGGCCCTGACAGCATCATGGAAGCCATATGATGCAGCCGACTGGACCCC
 ACCGAGAACCCCTTCGACTGCTTGACTTCAACCAGACGAGCCTGAGAGGGGCGACAACAACTACCA
 GGATCGTGGGAGGCCAGGAATGCAAGGACGGGGAGTGTCCCTGGCAGGCCCTGCTCATCAATGAGAAAA
 CGAGGGTTTCTGTGGTGAAGTATTCTGAGCGAGTTTACATCCTAACGGCAGCCCACTGTCTCTACCAA
 GCCAAGAGATTCAAGGTGAGGTAGGGGACCGGAACACGGAGCAGGAGGAGGGCGGTGAGGCGGTGCACG
 AGGTGGAGGTGGTCAAGCACAACCGGTTACAAAGGAGACCTATGACTTCGACATCGCCGTGCTCCG
 GCTCAAGACCCCATCACCTCCGCATGAACGTGGCGCCTGCCTGCCTCCCGAGCGTACTGGGCGGAG
 TCCACGCTGATGACGCAGAAGACGGGGATTGTGAGCGGCTTCGGGCGCACCCACGAGAAGGGCCGGCAGT
 CCACAGGCTCAAGATGCTGGAGGTGCCCTACGTGGACCGCAACAGCTGCAAGCTGTCCAGCAGCTTCAT
 CATCACCCAGAACATGTTCTGTGCGGGTACGACACCAAGCAGGAGGATGCCTGCCAGGGGGACAGCGGG
 GGCCCGCAGTCAACCGCTTCAAGGACACCTACTTCGTGACAGGCATCGTCAGCTGGGGAGAGGGTGTG
 CCCGTAAGGGGAAGTACGGGATCTACACCAAGGTACCGCCTTCTCAAGTGGATCGACAGGTCCATGAA
 AACCGGGGCTTGCCCAAGGCCAAGAGCCATGCCCGGAGGTCATAACGTCCTCTCCATTAAG

ACGCGTACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC208506 protein sequence
 Red=Cloning site Green=Tags(s)

MGRPLHLVLLSASLAGLLLLGESLFIIRREQANNILARVTRANSFLEEMKKGHLERECMEETCSYEEAREV
 FEDSDKTNEFWNKYKDGDCETSPCQONQKCKDGLGEYTCTCLEGFEGKNCELFTRKLCSLDNGDCDQFC
 HEEQNSVVCSCARGYTLADNGKACIPTGPYPCGKQTLERRKRSVAQATSSSGEAPDSITWKPYDAADLDP
 TENPFDLLDFNQTQPERGNNLTRIVGGQECKDGECPWQALLINEENEGFCGGTILSEFYILTAHCLYQ
 AKRFKVRVGRNTEQEEGGEAVHEVEVVIKHNRFKETYDFDIAVLRLLKTPITFRMNVAPACLPERDWAE
 STLMTQKTGIVSGFGRTHEKGRQSTRLLKMLEVPPYVDRNSCKLSSFIITQNMFCAGYDTKQEDACQGDSG
 GPHVTRFKDITYFTGIVSWGEGCARKGYGIYTKVTAFLKWIDRSMKTRGLPKAKSHAPEVITSSPLK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6091_b07.zip

Restriction Sites:

Sgfl-Mlul

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

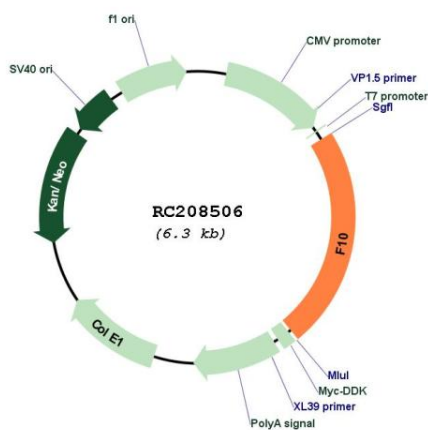
RefSeq: [NM_000504.4](#)
RefSeq Size: 1560 bp

RefSeq ORF: 1467 bp

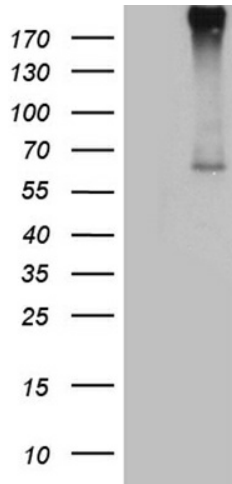
Locus ID: 2159

| | |
|--------------------------|--|
| UniProt ID: | <u>P00742</u> |
| Cytogenetics: | 13q34 |
| Domains: | GLA, Tryp_SPc, EGF_CA, EGF, EGF |
| Protein Families: | Druggable Genome, Protease, Transmembrane |
| Protein Pathways: | Complement and coagulation cascades |
| MW: | 54.7 kDa |
| Gene Summary: | 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, Ca ²⁺ , 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] |

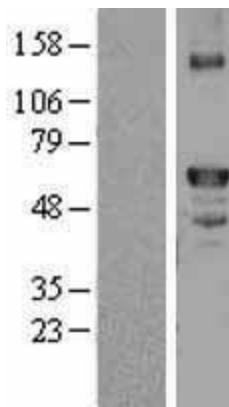
Product images:



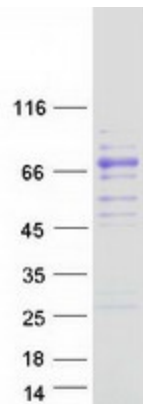
Circular map for RC208506



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY F10 (Cat# RC208506, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-F10 (Cat# [TA811731])(1:2000). Positive lysates [LY400172] (100ug) and [LC400172] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400172]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208506 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified F10 protein (Cat# [TP308506]). The protein was produced from HEK293T cells transfected with F10 cDNA clone (Cat# RC208506) using MegaTran 2.0 (Cat# [TT210002]).