

Product datasheet for **MR230216**

F10 (NM_001242368) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	F10 (NM_001242368) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	F10
Synonyms:	A11947; Cf10; fX
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR230216 representing NM_001242368
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCTGTACAGCCACTGCCGTCCTTGACCACACCATGGGGAGCCCGGTGCAACTCAGCCTGCTCTGTG
 TTGTCTGGCCAGCCTCCTGCTCCTGGGAAAGGTGTGTTTATTAACCGGGAACGTGCCAACAATGCTCT
 GGCGAGGACTCGGAGGGCAAACCTATTTTTGAAGAGTTCAAGAAAGGAAATCTGAAAGAGAGTGTATG
 GAAGAAATTTGTTCTTATGAAGAGGTCCGTGAAATCTTCGAGGACGACGAGAAGACGAAAGAATACTGGA
 CCAAATAAAAGACGGCACCAGTGTGAAAGCAGCCCTTGCCAGAACCAAGGAGCGTGTGAGATGGCAT
 CGGGGGTTACACGTGCACCTGCTCGGAGGGATTGAAAGGCAAAAACCTGTGAGCTCTTTGTTGCGAAAAC
 TGCCGCCTAGACAACGGAGACTGTGACCAGTCTGCAGAGAAGAGCAGAAGCTCAGTGGTGTGCTCCTGCG
 CCAGCGGTTACTTCTGGGTAATGATGGCAAGTCTTGATCTCCACAGCTCCCTCCCCTGTGAAAAAT
 CACTACAGGACGTAGGAAGAGGTCTGTGCCCTAACACCAGCGACAGTGAGCTTGACCTTGAAGACGCC
 CTGCTTGATGAGGATTTCTGTCCCTACGAGAAATCCTATTGAACTGCTCAACCTCAACGAGACACAGC
 CTGAGAGGAGCAGCGATGACCTTGTTCGATTGTGGGTGGCCGGGAATGCAAGGATGGAGAAATGTCCTG
 GCAGGCTCTGCTCATTAAACGAAGACAATGAAGGGTTCTGTGGGGCACCATCTTGAATGAGTTCTACATC
 CTCACTGCTGCCACTGTCTCCATCAGGCCAGGCGATTCAAGGTGAGGGTAGGTGATCGGAACACAGAGA
 AGGAAGAAGGCAACGAGATGGTGCACGAGGTGGACGTGGTCATTAAGCACAACAAGTTTCAGAGGGACAC
 CTACGACTATGATATCGCCGTGTGAGGCTGAAGACTCCCATCACGTTCCGGATGAACGTGGCCCTGCC
 TGCCCTGCCTCAGAAAGACTGGGCCGAGTCCACACTGATGACACAGAAGACGGGCATCGTGAGCGGGTTG
 GACGCACGATGAGAAGGGCCCGCAGTGAACATCCTGAAGATGCTGGAGGTACCTACGTGGATCGCAA
 CACTGCAAGCTCTCCACCAGCTTCAGCATCACACAGAATATGTTCTGTGCGGGCTATGAGGCCAAGTTA
 GAGGATGCCTGCCAGGGGACAGTGGTGGCCCATGTACACGTTCAAAAATACCTACTATGTGACCG
 GCATTGTGAGCTGGGAGAGGGGTGTGCAAGGAAAGGAAATATGGCATCTACACAAAGGTACGACCTT
 CCTCAAGTGGATTGACAGGTCCATGAAAGCCAGGGTGGGACCCACAGCCGAGACCCCAAGGACAGCAGGT
 CCGCCCAAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230216 representing NM_001242368
 Red=Cloning site Green=Tags(s)

MPVTATAVL DHTMGSPVQLSLLCVVLSLLLPGKGVFINRERANNVLARTRRANSFFEEFKGNLERECM
 EEICSYEEVREIFEDDEKTKKEYWKYKDGDCQESSPCQNQGACRDGIGGYTCTCSEGFEGKNCLEFVRKL
 CRLDNGDCDQFCREEQNSVVCSCASGYFLGNDGKSCISTAPFPCGKITTGRRKRVSALNTSDSELDLEDA
 LLDEDFLSPTENPIELLNLNETQPERSSDDLVRIVGGRECKDGECPWQALLINEDNEGFCGGTILNEFYI
 LTAAHCLHQARRFKVRVGDNRNTEKEEGNEMVHEVDVVIKHNKFRDITYDYDIAVLRLLKTPITFRMNVAPA
 CLPQKDWAE STLMTQKTGIVSGFGRTHEKGRQSNILKMLEVPYVDRNTCKLSTSFITQNMFCAGYEAKL
 EDACQGDSSGPHVTRFKNTYYVTGIVSWGEGCARKGKYGIYTKVTTFLKWIDRSMKARVGPTAETPRTAG
 PPN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

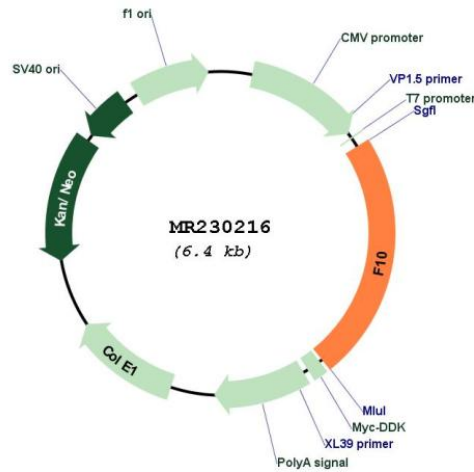
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001242368

ORF Size: 1479 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_001242368.1](#), [NP_001229297.1](#)

RefSeq Size: 2693 bp

RefSeq ORF: 1482 bp

Locus ID: 14058

Cytogenetics: 8 5.73 cM

MW: 55.7 kDa

Gene Summary: This gene encodes factor X, a component of both the intrinsic and extrinsic blood coagulation pathways. The encoded protein is a zymogen that undergoes further processing in a vitamin K-dependent manner to generate mature factor X, a heterodimer comprised of disulfide-linked heavy and light chains. The mature factor X is proteolytically activated either by factor IXa (intrinsic pathway) or factor VIIa (extrinsic pathway) to form factor Xa serine endopeptidase. Activated factor Xa catalyzes the conversion of prothrombin to thrombin. A complete lack of the encoded protein is fatal to mice. A severe deficiency of the encoded protein in mice causes age-dependent iron deposition and cardiac fibrosis. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Aug 2015]