

Product datasheet for **RC219065**

Factor IX (F9) (NM_000133) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Factor IX (F9) (NM_000133) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Factor IX
Synonyms:	F9 p22; FIX; HEMB; P19; PTC; THPH8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC219065 representing NM_000133
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCAGCGGTGAACATGATCATGGCAGAATCACCAGGCCTCATCACCATCTGCCTTTAGGATATCTAC
 TCAGTGCTGAATGTACAGTTTTTCTTGATCATGAAAACGCCAACAAAATTCTGAATCGGCCAAAGAGGTA
 TAATTCAGGTAATTTGGAAGAGTTTGTCAAGGGAACCTTGAGAGAGAATGTATGGAAGAAAAGTGTAGT
 TTTGAAGAAGCACGAGAAGTTTTGAAAACACTGAAAGAACAACCTGAATTTGGAAGCAGTATGTTGATG
 GAGATCAGTGTGAGTCCAATCCATGTTTAAATGGCGGCAGTTGCAAGGATGACATTAATTCCTATGAATG
 TTGGTGTCCCTTTGGATTTGAAGGAAAGAACTGTGAATTAGATGTAACATGTAACATTAAGAATGCCAGA
 TGCGAGCAGTTTTGTA AAAATAGTGTGATAACAAGGTGGTTTGTCTCTGTACTGAGGGATATCGACTTG
 CAGAAAACCAGAAGTCTGTGAACCAGCAGTGCCATTTCCATGTGGAAGAGTTTCTGTTTCAAACTTC
 TAAGCTCACCCGTCTGAGACTGTTTTCTGATGTGGACTATGTA AATTCTACTGAAGCTGAAACCATT
 TTGGATAACATCACTCAAAGCACCAATCATTTAATGACTTCACTCGGGTTGTTGGTGGAGAAGATGCCA
 AACCAGGTCAATCCCTTGGCAGGTTGTTTGAATGGTAAAGTTGATGCATTCTGTGGAGGCTCTATCGT
 TAATGAAAAATGGATTGTA AACTGCTGCCACTGTGTTGAAACTGGTGTAAAATTACAGTTGTCGAGGT
 GAACATAATATTGAGGAGACAGAACATACAGAGCAAAGCGAAATGTGATTCGAATTATTCCTCACCACA
 ACTACAATGCAGCTATTAATAAGTACAACCATGACATTGCCCTTCTGGAAGTGGACGAACCCCTAGTGTCT
 AAACAGCTACGTTACACCTATTTGCATTGCTGACAAGGAATACACGAACATCTTCCTCAAATTTGGATCT
 GGCTATGTAAGTGGCTGGGAAGAGTCTCCACAAGGGAGATCAGCTTTAGTTCTTCAGTACCTTAGAG
 TTCCACTTGTGACCGAGCCACATGTCTCGATCTACAAAGTTCACCATCTATAACAACATCTTCTGTGC
 TGGCTTCCATGAAGGAGGTAGAGATTCATGTCAAGGAGATAGTGGGGGACCCCATGTTACTGAAAGTGAA
 GGGACCAGTTTCTTA AACTGGAATTATTAGCTGGGTGAAGAGTGTGCAATGAAAGCAAATATGGAATAT
 ATACCAAGGTATCCCGGTATGTCAACTGGATTAAGGAAAAACAAGCTCACT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC219065 representing NM_000133
 Red=Cloning site Green=Tags(s)

MQRVNMIMAESPLITICLLGYLLSAECTVFLDHENANKILNRPKRYNSGKLEEFVQGNLERECMEEKCS
 FEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGCKDDINSYECWCPFGFEGKNCELDVTCNIKNGR
 CEQFCKNSADNKVVCSTEGYRLAENQKSCEPAVPPFCGRVSVSQTSLKTRAETVFPDVDVYNSTEAETI
 LDNITQSTQSFNDFTRVVGGEDAKPGQFPWQVVLNGKVDFAFCGGSIVNEKWIIVTAAHCVETGVKITVVAG
 EHNIEETEHEQKRNIRIIPHNNYAAINKYNHDIALLELDEPLVLSYVTPICIAADKEYTNIIFLKFGS
 GYVSGWGRVFKGRSALVLQYLRVPLVDRATCLRSTKFTIYNNMFCAGFHEGGRDSCQDSSGGPHVTEVE
 GTSFLTGIISWGEECAMKGYGIYTKVSRYVNWIKETKLT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6159_a03.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_000133

ORF Size: 1383 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_000133.4](#)

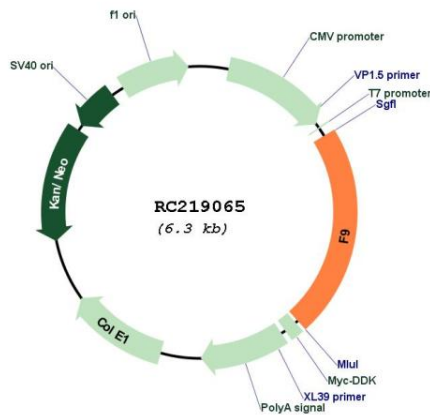
RefSeq Size: 2804 bp

RefSeq ORF: 1386 bp

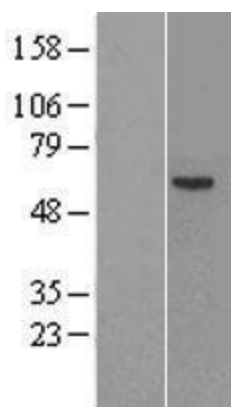
Locus ID: 2158

UniProt ID:	<u>P00740</u>
Cytogenetics:	Xq27.1
Domains:	GLA, Tryp_SPc, EGF_CA, EGF, EGF
Protein Families:	Druggable Genome, Protease, Secreted Protein
Protein Pathways:	Complement and coagulation cascades
MW:	51.78 kDa
Gene Summary:	This gene encodes vitamin K-dependent coagulation factor IX that circulates in the blood as an inactive zymogen. This factor is converted to an active form by factor XIa, which excises the activation peptide and thus generates a heavy chain and a light chain held together by one or more disulfide bonds. The role of this activated factor IX in the blood coagulation cascade is to activate factor X to its active form through interactions with Ca ²⁺ ions, membrane phospholipids, and factor VIII. Alterations of this gene, including point mutations, insertions and deletions, cause factor IX deficiency, which is a recessive X-linked disorder, also called hemophilia B or Christmas disease. Alternative splicing results in multiple transcript variants encoding different isoforms that may undergo similar proteolytic processing. [provided by RefSeq, Sep 2015]

Product images:



Circular map for RC219065



Western blot validation of overexpression lysate (Cat# [LY400045]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219065 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).