

Product datasheet for **RC200499**

Complement factor B (CFB) (NM_001710) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Complement factor B (CFB) (NM_001710) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Complement factor B
Synonyms:	AHUS4; ARMD14; BF; BFD; CFAB; CFBD; FB; FBI12; GBG; H2-Bf; PBF2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC200499 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGAGCAATCTCAGCCCCAACTCTGCCTGATGCCCTTTATCTTGGCCTCTTGTCTGGAGGTGTGA
 CCACCACTCCATGGTCTTTGGCCTGGCCCCAGGGATCCTGCTCTCTGGAGGGGTAGAGATCAAAGCGG
 CTCCTTCCGACTTCTCCAAGAGGGCCAGGCACTGGAGTACGTGTCTCTTCTGGCTTCTACCCGTACCC
 GTGCAGACACGTACCTGCAGATCTACGGGGTCTGGAGCACCTGAAGACTCAAGACAAAAGACTGTCA
 GGAAGGCAGAGTGCAGAGCAATCCACTGTCCAAGACCACGACTTCGAGAACGGGGAATACTGGCCCCG
 GTCTCCCTACTACAATGTGAGTGATGAGATCTTTCCACTGCTATGACGGTTACTCTCCGGGCTCT
 GCCAATCGCACCTGCCAAGTGAATGGCCGGTGGAGTGGCAGACAGCGATCTGTGACAACGGAGCGGGT
 ACTGCTCAACCCGGGCATCCCCATTGGCACAAGGAAGTGGCAGCCAGTACCGCCTTGAAGACAGCGT
 CACCTACCACTGCAGCCGGGGTACCCTGCGTGGCTCCAGCGCGCAACGTGTGAGGAAGGTGGCTCT
 TGGAGCGGGACGGAGCCTTCTGCCAAGACTCCTTCATGTACGACACCCCTCAAGAGGTGGCCGAAGCTT
 TCCTGTCTTCCCTGACAGAGACCATAGAAGGAGTCGATGCTGAGGATGGGCACGGCCAGGGGAACAACA
 GAAGCGGAAGATCGTCTGGACCCTCAGGCTCCATGAACATCTACCTGGTGTAGATGGATCAGACAGC
 ATGGGGCCAGCAACTTCACAGGAGCCAAAAAGTGTCTAGTCACTTAATTGAGAAGGTGGCAAGTTATG
 GTGTGAAGCCAAGATATGGTCTAGTGACATATGCCACATACCCCAAAATTTGGGTCAAAGTGTCTGAAGC
 AGACAGCAGTAAATGCAGACTGGTCCAGCAAGCAGCTCAATGAAATCAATTATGAAGACCACAAGTTGAAG
 TCAGGGACTAACCCAAGAAGGCCCTCCAGGCAGTGTACAGCATGATGAGCTGGCCAGATGACGTCCCTC
 CTGAAGCTGGAACCGCACCCGCCATGTCATCCTCATGACTGATGGATTGCACAACATGGCCGGGGA
 CCCAATTAAGTGTATTGATGAGATCCGGGACTTGCTATACATTGGCAAGGATCGCAAAAACCAAGGGAG
 GATTATCTGGATGCTATGTGTTGGGGTGGCCCTTTGGTGAACCAAGTGAACATCAATGCTTTGGCTT
 CCAAGAAAGACAATGAGCAACATGTGTTCAAAGTCAAGGATATGGAAAACCTGGAAGATGTTTTCTACCA
 AATGATCGATGAAAGCCAGTCTCTGAGTCTCTGTGGCATGGTTTGGGAACACAGGAAGGGTACCGATTAC
 CACAAGCAACCATGGCAGGCCAAGATCTCAGTCATTCCGCCCTTCAAAGGGACACGAGAGCTGTATGGGG
 CTGTGGTGTCTGAGTACTTTGTGCTGACAGCAGCACATTGTTTCACTGTGGATGACAAGGAACACTCAAT
 CAAGGTCAGCGTAGGAGGGGAGAAGCGGGACCTGGAGATAGAAGTAGTCCTATTTACCCCAACTACAAC
 ATTAATGGAAAAAGAAGCAGGAATTCCTGAATTTTATGACTATGACGTTGCCCTGATCAAGCTCAAGA
 ATAAGCTGAAATATGGCCAGACTATCAGGCCATTTGTCTCCCTGCACCGAGGGAACAACCTCGAGCTTT
 GAGGCTTCTCCTCAACTACCACTTGCCAGCAACAAAAGGAAGAGCTGCTCCCTGCACAGGATATCAAAGCT
 CTGTTTGTGCTGAGGAGGAGAAAAAGTACTCGGAAGGAGGTCTACATCAAGAATGGGGATAAGAAAAG
 GCAGCTGTGAGAGAGATGCTCAATATGCCCCAGGCTATGACAAAGTCAAGGACATCTCAGAGGTGGTAC
 CCCTCGGTTCTTTGACTGGAGGAGTGTGCTTATGCTGACCCCAATACTTGCAGAGGTGATTCTGGC
 GGCCCTTGATAGTTCACAAGAGAAGTCGTTTCATTCAAGTTGGTGAATCAGCTGGGGAGTAGTGGATG
 TCTGCAAAAACCAAGCGGCAAAAGCAGGTACCTGCTCAGCCCCGAGACTTTCACATCAACCTCTTCA
 AGTGTGCCCTGGCTGAAGGAGAACTCCAAGATGAGGATTTGGGTTTTCTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC200499 protein sequence
Red=Cloning site Green=Tags(s)

MGSNLSPLQLCLMPFILGLLGGVTTTPWSLAWPQGSCSLEGEIKGGSFRLQEQQALEYVCPSPGFYPYP
VQTRTCRSTGWSLTKTQDKTVRKAECRAIHCPHPDFENGEYWPSPYNNVSDIEISFHCYDGYTLRGS
ANRTCQVNGRWSGQTAICDNGAGYCSNPGIPIGTRKVGSRQYRLEDSVYHCSRGLTLRGSQRRTCEGGS
WSGTEPSCQDSFMYDTPQEVAAFLSSLTETIEGVDAEDGHGPGEQQKRKIVLDPGSGMNIYLVLDGSDS
IGASNFTGAKKCLVNLIEKVASYGVKPRYGLVYATYPKIWKVSEADSSNADWVTKQLNEINYEDHKLK
SGTNTKKALQAVYSMMSWPDDVPPEGWNRTRHVIILMTDGLHNMGGDPITVIDEIRDLLYIGKDRKNPRE
DYLDVYVFGVGPLVNQVINALASKKDNEQHVFKVMDMENLEDVFYQMIDESQSLSLCGMVWEHRKGTDY
HKQPWQAKISVIRPSKGHESCMGAVVSEYFVLTAHCFTVDDKEHSIKVSVGGEKRDLEIEVVLFHPNYN
INGKKEAGIPEFYDYDVALIKLKNKLKYGTIRPICLPCTEGTTRALRLPPTTTCQQKEELLPAQDIKA
LFVSEEEKLTRKEVYIKNGDKKGCERDAQYAPGYDKVKDISEVVTPRFLCTGGVSPYADPNTCRGDSG
GPLIVHKRSRFIQVGVISWGVDVCKNQKRQKQVPAHARDFHINLFQVLPWLKEKLQDEDLGFL

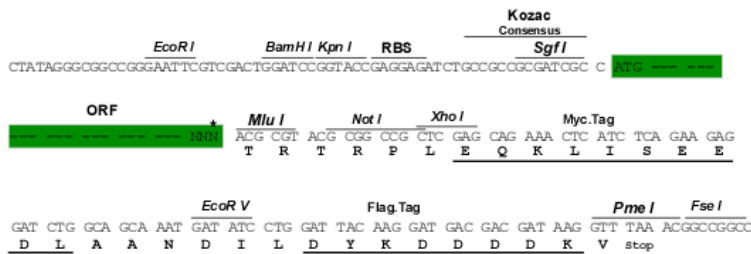
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6156_e06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001710

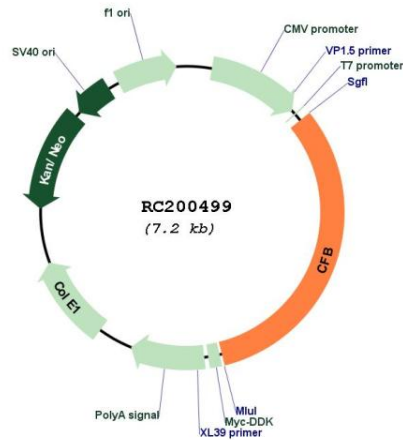
ORF Size: 2292 bp

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](#)

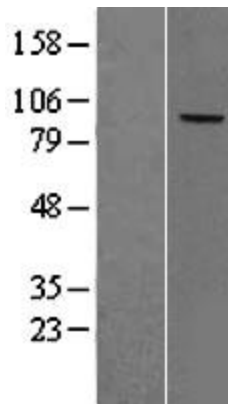
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<ol style="list-style-type: none">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_001710.6
RefSeq Size:	2646 bp
RefSeq ORF:	2295 bp
Locus ID:	629
UniProt ID:	P00751
Cytogenetics:	6p21.33
Domains:	CCP, Tryp_SPC, VWA
Protein Families:	Druggable Genome, Protease, Secreted Protein
Protein Pathways:	Complement and coagulation cascades
MW:	85.6 kDa
Gene Summary:	<p>This gene encodes complement factor B, a component of the alternative pathway of complement activation. Factor B circulates in the blood as a single chain polypeptide. Upon activation of the alternative pathway, it is cleaved by complement factor D yielding the noncatalytic chain Ba and the catalytic subunit Bb. The active subunit Bb is a serine protease which associates with C3b to form the alternative pathway C3 convertase. Bb is involved in the proliferation of preactivated B lymphocytes, while Ba inhibits their proliferation. This gene localizes to the major histocompatibility complex (MHC) class III region on chromosome 6. This cluster includes several genes involved in regulation of the immune reaction. Polymorphisms in this gene are associated with a reduced risk of age-related macular degeneration. The polyadenylation site of this gene is 421 bp from the 5' end of the gene for complement component 2. [provided by RefSeq, Jul 2008]</p>

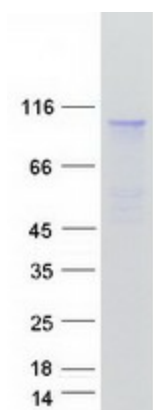
Product images:



Circular map for RC200499



Western blot validation of overexpression lysate (Cat# [LY400641]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200499 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CFB protein (Cat# [TP300499]). The protein was produced from HEK293T cells transfected with CFB cDNA clone (Cat# RC200499) using MegaTran 2.0 (Cat# [TT210002]).