

## Product datasheet for **RG216645**

### Factor I (CFI) (NM\_000204) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Factor I (CFI) (NM_000204) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Factor I
Synonyms:	AHUS3; ARMD13; C3b-INA; C3BINA; FI; IF; KAF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG216645 representing NM\_000204  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAAGCTTCTTCATGTTTTCTGTTATTTCTGTGCTTCCACTTAAGTTTTGCAAGGTCACTTATACAT  
 CTAAGAGGATCTGGTGGAGAAAAAGTCTTAGCAAAAAATATACTCACCTCTCTCGGATAAAGTCTT  
 CTGCCAGCCATGGCAGAGATGCATTGAGGGCACCTGTGTTTGTAAACTACCGTATCAGTGCCCAAAGAA  
 GGCACTGCAGTGTGTGCAACTAACAGGAGAAGCTTCCCAACTACTGTCAACAAAAGAGTTTGGAAATGTC  
 TTCATCCAGGGACAAAGTTTTAAATAACGGAACATGCACAGCCGAAGGAAAGTTTAGTGTTCCTTGAA  
 GCATGAAATACAGATTCAGAGGGAATAGTTGAAGTAAACTTGTGGACCAAGATAAGACAATGTTGATA  
 TGCAAAAGCAGCTGGAGCATGAGGGAAGCCAACGTGGCCTGCCTGACCTGGGTTTCAACAAGGTGCTG  
 ATACTCAAAGAAGTTTTAAGTTGTCTGATCTCTATAAATCCACTGAATGTCTACATGTGCATTGCCG  
 AGGATTAGAGACCAGTTTGGCTGAATGTACTTTTACTAAGAGAAGAACTATGGGTTACCAGATTTCGCT  
 GATGTGGTTTGTATACACAGAAAGCAGATTCTCCAATGGATGACTTCTTTCAGTGTGTGAATGGGAAAT  
 ACATTTCTCAGATGAAAGCCTGTGATGGTATCAATGATTGTGGAGACCAAGTATGAAGTGTGTTGTA  
 AGCATGCCAAGGCAAAGGCTTCCATTGCAAAATCGGGTGTTCATTCCAAGCCAGTATCAATGCAATGGT  
 GAGGTGGACTGCATTACAGGGGAAGATGAAGTTGGCTGTGCAGGCTTTCATCTGTGGCTCAAGAAGAAA  
 CAGAAATTTGACTGCTGACATGGATGCAGAAAGAAGACGGATAAAATCATTATTACCTAAACTATCTTG  
 TGGAGTAAAAACAGAATGCACATTCGAAGGAAACGAATTGTGGGAGGAAAGCGAGCACAACCTGGGAGAC  
 CTCCCATGGCAGGTGGCAATTAAGGATGCCAGTGAATCACCTGTGGGGGAAATTTATATTGGTGGCTGTT  
 GGATTCGACTGCTGCACATTGTCTCAGAGCCAGTAAACTCATCGTTACCAAATATGGACAACAGTATG  
 AGACTGGATACACCCCGACCTTAAACGTATAGTAATTGAATACGTGGATAGAATATTTTCCATGAAAC  
 TACAATGCAGGCCTTACCAAATGACATCGCTTTGATTGAAATGAAAAAGACGAAACAAAAAGATT  
 GTGAGCTGCCTCGTTCCATCCCTGCCTGTGTCCCTGGTCTCCTTACCTATTCCAACCTAATGATACATG  
 CATCGTTTCTGGCTGGGACGAGAAAAAGATAACGAAAGAGTCTTTTCACTTCAGTGGGGTGAAGTTAAA  
 CTAATAAGCAACTGCTCTAAGTTTTACGAAATCGTTTCTATGAAAAAGAAATGGAATGTGCAGGTACAT  
 ATGATGGTTCCATCGATGCCTGTAAGGGGACTCTGGAGGCCCTTAGTCTGTATGGATGCCAACAATGT  
 GACTTATGTCTGGGTGTTGTGAGTTGGGGGAAAAGTGTGAAAACAGAGTCCCAGTTTTTACACC  
 AAAGTGGCAATATTTTACTGGATTAGCTACCATGTAGGAAGGCCTTTTATTTCTCAGTACAATGTA

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG216645 representing NM\_000204  
 Red=Cloning site Green=Tags(s)

MKLLHVFLLFLCFHLRFCKVITYTSQEDLVEKKCLAKKYTHLSCDKVFCQPWQRCIEGTCVCKLPYQCPKN  
 GTAVCATNRRSFPTYCQQKSLECLHPGKFLNNGTCTAEGKFSVSLKHGNTDSEGIVEVKLVQDKTMFI  
 CKSSWSMREANVACLDLGFQQGADTQRRFKLSDLSINSTECLHVHCRGLETSLAECTFTKRRTMGYQDFA  
 DVVYCTQKADSPMDDFFQCVNGKYISQMKACDGINDCGDSDELCKACQKGFHCKSGVCIPSQYQCNG  
 EVDCITGEDEVGCAGFASVAQEETEILTADMDAERRRIKSLLPKLSGKVMHIRMHRRKRIVGGKRAQLGD  
 LPWQVAIKDASGITCGGIYIGGCWILTAHCLRASKTHRYQIWTTVVDWIHPDLKRIVIEYVDRIIFHEN  
 YNAGTYQNDIALIEMKKDGNKKDCELPRIPACVPWSPYLFQPNDCIVSGWGREKDNERNVFLQWGEVK  
 LISNCSKIFYGNRFYEKEMECAGTYDGSIDACKGDSGGPLVCM DANNVTVVWGVVSWGKPEFPGFY  
 KVANYFDWISYHVGRPFISQYNV

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_000204

**ORF Size:** 1749 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\\_000204.1](#), [NP\\_000195.1](#)

**RefSeq Size:** 1963 bp

**RefSeq ORF:** 1752 bp

**Locus ID:** 3426

**UniProt ID:** [P05156](#)

**Cytogenetics:** 4q25

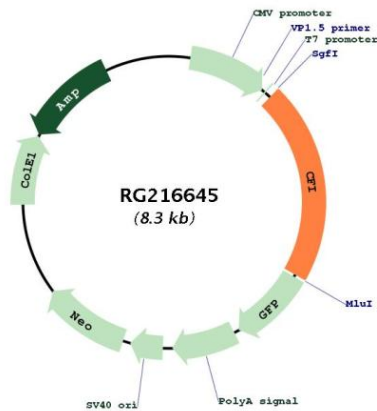
**Domains:** SR, Tryp\_SPC, ldl\_recept\_a, FIMAC

**Protein Families:** Druggable Genome, Protease, Secreted Protein

**Protein Pathways:** Complement and coagulation cascades

**Gene Summary:** This gene encodes a serine proteinase that is essential for regulating the complement cascade. The encoded preproprotein is cleaved to produce both heavy and light chains, which are linked by disulfide bonds to form a heterodimeric glycoprotein. This heterodimer can cleave and inactivate the complement components C4b and C3b, and it prevents the assembly of the C3 and C5 convertase enzymes. Defects in this gene cause complement factor I deficiency, an autosomal recessive disease associated with a susceptibility to pyogenic infections. Mutations in this gene have been associated with a predisposition to atypical hemolytic uremic syndrome, a disease characterized by acute renal failure, microangiopathic hemolytic anemia and thrombocytopenia. Primary glomerulonephritis with immune deposits and age-related macular degeneration are other conditions associated with mutations of this gene. [provided by RefSeq, Dec 2015]

**Product images:**



Circular map for RG216645