

## Product datasheet for RC203585

### Cofilin 1 (CFL1) (NM\_005507) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Cofilin 1 (CFL1) (NM\_005507) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Cofilin 1  
**Synonyms:** CFL; cofilin; HEL-S-15  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC203585 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCCTCCGGTGTGGCTGTCTCTGATGGTGTCATCAAGGTGTTCAACGACATGAAGGTGCGTAAGTCTT  
 CAACGCCAGAGGAGGTGAAGAAGCGCAAGAAGGCGGTGCTCTTCTGCCTGAGTGAGGACAAGAACAAT  
 CATCCTGGAGGAGGGCAAGGAGATCCTGGTGGCGATGTGGCCAGACTGTCGACGATCCCTACGCCACC  
 TTTGTCAAGATGCTGCCAGATAAGGACTGCCGCTATGCCCTCTATGATGCAACCTATGAGACCAAGGAGA  
 GCAAGAAGGAGGATCTGGTGTATCTTCTGGGCCCGAGTCTGCGCCCTTAAGAGCAAATGATTTA  
 TGCCAGCTCCAAGGACGCCATCAAGAAGAAGCTGACAGGGATCAAGCATGAATTGCAAGCAAAGTCTAC  
 GAGGAGGTCAAGGACCGCTGCACCTGGCAGAGAAGCTGGGGGGCAGTCCGTCATCTCCCTGGAGGGCA  
 AGCCTTTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC203585 protein sequence  
 Red=Cloning site Green=Tags(s)

MASGVAVSDGVIKVFNDMKVRKSSSTPEEVKRRKAVLFCLSEDKKNIILEEGKEILVGDVGQTVDDPYAT  
 FVKMLPDKCRYALYDATYETKESKKEDLVFIFWAPESAPLKSMMIYASSKDAIKKLTGIKHELQANCY  
 EEVKDRCTLAEKLGGSAVISLEGKPL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6056\\_b01.zip](https://cdn.origene.com/chromatograms/mk6056_b01.zip)



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**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_005507

**ORF Size:** 498 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.

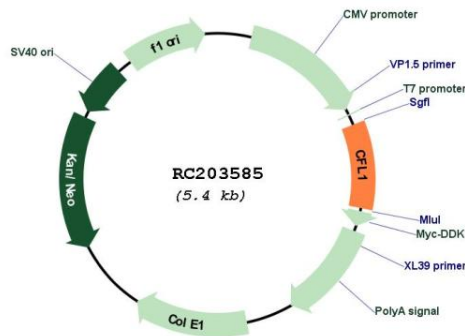
**RefSeq:** [NM\\_005507.3](#)

**RefSeq Size:** 1260 bp

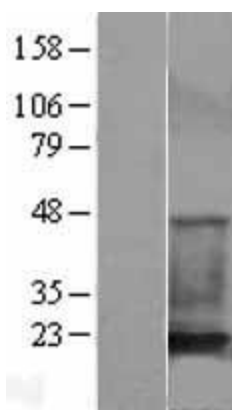
**RefSeq ORF:** 501 bp

**Locus ID:** 1072  
**UniProt ID:** [P23528](#)  
**Cytogenetics:** 11q13.1  
**Domains:** ADF  
**Protein Families:** Druggable Genome  
**Protein Pathways:** Axon guidance, Fc gamma R-mediated phagocytosis, Regulation of actin cytoskeleton  
**MW:** 18.5 kDa  
**Gene Summary:** The protein encoded by this gene can polymerize and depolymerize F-actin and G-actin in a pH-dependent manner. Increased phosphorylation of this protein by LIM kinase aids in Rho-induced reorganization of the actin cytoskeleton. Cofilin is a widely distributed intracellular actin-modulating protein that binds and depolymerizes filamentous F-actin and inhibits the polymerization of monomeric G-actin in a pH-dependent manner. It is involved in the translocation of actin-cofilin complex from cytoplasm to nucleus.[supplied by OMIM, Apr 2004]

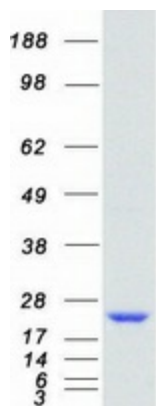
**Product images:**



Circular map for RC203585



Western blot validation of overexpression lysate (Cat# [LY401686]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203585 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CFL1 protein (Cat# [TP303585]). The protein was produced from HEK293T cells transfected with CFL1 cDNA clone (Cat# RC203585) using MegaTran 2.0 (Cat# [TT210002]).