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Product datasheet for RC205105

Cofilin 2 (CFL2) (NM_021914) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cofilin 2 (CFL2) (NM_021914) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cofilin 2
Synonyms:	NEM7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC205105 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTTCTGGAGTTACAGTGAATGATGAAGTCATCAAAGTTTTTAATGATATGAAAGTAAGGAAATCTT
CTACACAAGAGGAGATCAAAAAGAGAAAGAAAGCAGTTCTCTTCTGTTTAAGCGATGACAAAAGACAAAT
AATTGTAGAGGAAGCAAAGCAGATCTTGGTGGGTGACATTGGTGATACTGTAGAGGACCCCTACACATCT
TTTGTGAAGTTGCTACCTCTGAATGATTGCCGATATGCTTTGTACGATGCCACATACGAAACAAAAGAGT
CTAAGAAAGAAGACCTAGTATTTATATTCTGGGCTCCTGAAAGTGCACCTTTAAAAAGCAAGATGATTTA
TGCTAGCTCTAAAGATGCCATTAAAAAGAAATTTACAGGTATTAAACATGAGTGGCAAGTAAATGGCTTG
GATGATATTAAGGACCGTTCGACACTTGGAGAGAAATTGGGAGGCAATGTAGTAGTTTCACTTGAAGGAA
AACCATTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205105 protein sequence
Red=Cloning site Green=Tags(s)

MASGVTVNDEVIKVFNDMKVRKSSTQEEIKKRKKAVLFCLSDDKRQIIVEEAKQILVGDIGDTVEDPYTS
FVKLLPLNDCRYALYDATYETKESKKEDLVFIFWAPESAPLKSKMIYASSKDAIKKKFTGIKHEWQVNGL
DDIKDRSTLGEKLGGNVVVSLEGKPL

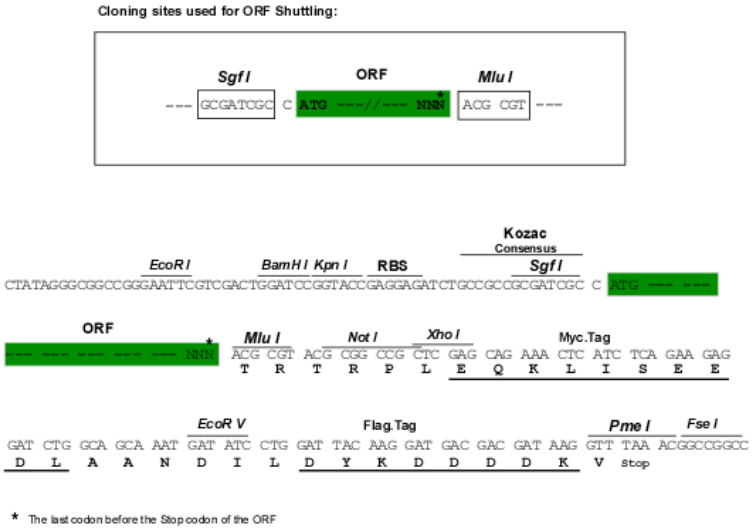
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6067_a03.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_021914

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.

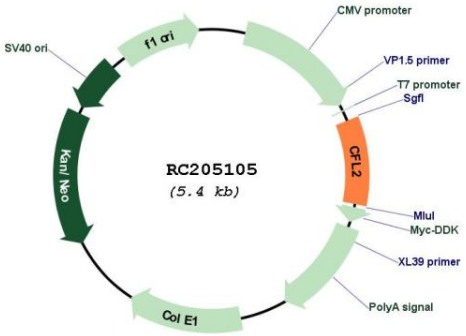
RefSeq: NM_021914.7

RefSeq Size: 3125 bp

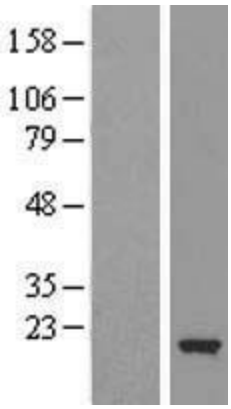
RefSeq ORF: 501 bp

Locus ID:	1073
UniProt ID:	Q9Y281
Cytogenetics:	14q13.1
Domains:	ADF
Protein Families:	Druggable Genome
Protein Pathways:	Axon guidance, Fc gamma R-mediated phagocytosis, Regulation of actin cytoskeleton
MW:	18.7 kDa
Gene Summary:	This gene encodes an intracellular protein that is involved in the regulation of actin-filament dynamics. This protein is a major component of intranuclear and cytoplasmic actin rods. It can bind G- and F-actin in a 1:1 ratio of cofilin to actin, and it reversibly controls actin polymerization and depolymerization in a pH-dependent manner. Mutations in this gene cause nemaline myopathy type 7, a form of congenital myopathy. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2009]

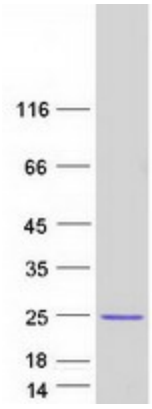
Product images:



Circular map for RC205105



Western blot validation of overexpression lysate (Cat# [LY411884]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205105 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CFL2 protein (Cat# [TP305105]). The protein was produced from HEK293T cells transfected with CFL2 cDNA clone (Cat# RC205105) using MegaTran 2.0 (Cat# [TT210002]).