

Product datasheet for **RC212101**

CDC42SE2 (NM_020240) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: CDC42SE2 (NM_020240) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: CDC42SE2
Synonyms: SPEC2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC212101 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAGTGAATTCTGGTTGTGTTTCAACTGCTGTATTGCAGAACAGCCTCAGCCTAAAAGCGGACGGCGGA
 TTGACAGAAGTATGATTGGAGAGCCCAAACTTTGTGCATACAGCTCATGTTGGATCAGGAGACCTGTT
 CAGTGAATGAATTCAGTTAGCTCCATTCAGAACCAATGCAGTCCAAGGGAGGTTATGGAGGTGGAATG
 CCTGCCAATGTCCAGATGCAGCTCGTGGATACGAAGCGGGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC212101 protein sequence
 Red=Cloning site Green=Tags(s)
 MSEFWLCFNCCIAEQPQPKRRRRIDRSMIGEPTNFVHTAHVGSGLDFSGMNSVSSIQNQMKSAGGYGGGM
 PANVQMLVDTKAG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6457_a09.zip

Restriction Sites: SgfI-MluI



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Cloning Scheme:



ACCN: NM_020240

ORF Size: 252 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_020240.3](#)

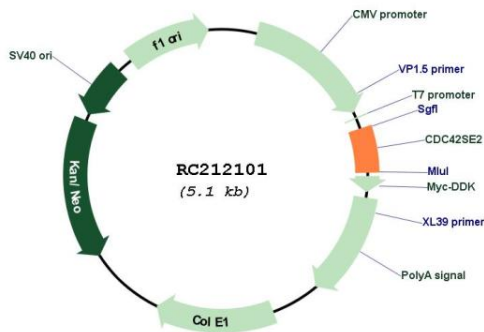
RefSeq Size: 3667 bp

RefSeq ORF: 255 bp

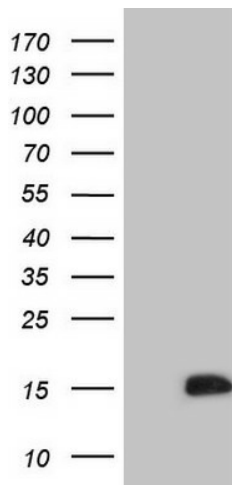
Locus ID: 56990

UniProt ID: [Q9NRR3](#)
Cytogenetics: 5q31.1
Protein Families: Druggable Genome
MW: 9.2 kDa
Gene Summary: Probably involved in the organization of the actin cytoskeleton by acting downstream of CDC42, inducing actin filament assembly. Alters CDC42-induced cell shape changes. In activated T-cells, may play a role in CDC42-mediated F-actin accumulation at the immunological synapse. May play a role in early contractile events in phagocytosis in macrophages.[UniProtKB/Swiss-Prot Function]

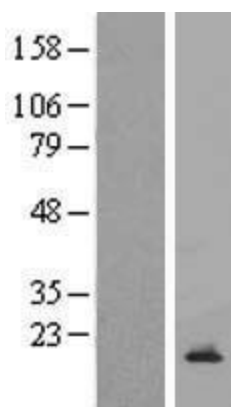
Product images:



Circular map for RC212101



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CDC42SE2 (Cat# RC212101, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CDC42SE2 (Cat# [TA808192])(1:2000). Positive lysates [LY412575] (100ug) and [LC412575] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY422007]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC212152] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).