

Product datasheet for **SC311054**

CDC42 (NM_001039802) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CDC42 (NM_001039802) Human Untagged Clone
Tag:	Tag Free
Symbol:	CDC42
Synonyms:	CDC42Hs; G25K; TKS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC311054 representing NM_001039802. Blue=Insert sequence Red=Cloning site Green=Tag(s)

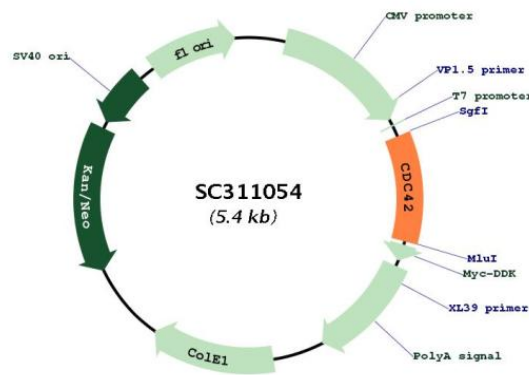
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GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGCAGACAATTAAGTGTGTTGTTGTGGGCGATGGTGTGTTGGTAAAACATGTCTCCTGATATCCTAC
ACAACAAACAAATTTCCATCGGAATATGTACCGACTGTTTTTGACAACATGCAGTCACAGTTATGATT
GGTGGAGAACCATATACTCTGGACTTTTTGATACTGCAGGGCAAGAGGATTATGACAGATTACGACCG
CTGAGTTATCCACAAACAGATGATTTTCTAGTCTGTTTTTCAGTGGTCTCTCCATCTTCATTTGAAAAC
GTGAAAGAAAAGTGGGTGCCTGAGATAACTCACCAGTCCAAAGACTCCTTTCTTGCTTGTGGGACT
CAAATTGATCTCAGAGATGACCCCTCTACTATTGAGAACTTGCCAAGAACAACAGAAGCCTATCACT
CCAGAGACTGCTGAAAAGCTGGCCCGTGACCTGAAGGCTGTCAAGTATGTGGAGTGTCTGCACTTACA
CAGAAAGGCCTAAAGAATGATTTGACGAAGCAATATTGGCTGCCTGGAGCCTCCAGAACCGAAGAAG
AGCCGCAGGTGTGTGCTGCTATGA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Restriction Sites: Sgfl-MluI



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Plasmid Map:



ACCN: NM_001039802

Insert Size: 576 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_001039802.1
RefSeq Size:	2308 bp
RefSeq ORF:	576 bp
Locus ID:	998
UniProt ID:	P60953
Cytogenetics:	1p36.12
Protein Families:	Druggable Genome
Protein Pathways:	Adherens junction, Axon guidance, Chemokine signaling pathway, Endocytosis, Epithelial cell signaling in Helicobacter pylori infection, Fc gamma R-mediated phagocytosis, Focal adhesion, GnRH signaling pathway, Leukocyte transendothelial migration, MAPK signaling pathway, Neurotrophin signaling pathway, Pancreatic cancer, Pathogenic Escherichia coli infection, Pathways in cancer, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway, Tight junction, VEGF signaling pathway
MW:	21.3 kDa

Gene Summary: The protein encoded by this gene is a small GTPase of the Rho-subfamily, which regulates signaling pathways that control diverse cellular functions including cell morphology, migration, endocytosis and cell cycle progression. This protein is highly similar to *Saccharomyces cerevisiae* Cdc 42, and is able to complement the yeast *cdc42-1* mutant. The product of oncogene *Dbl* was reported to specifically catalyze the dissociation of GDP from this protein. This protein could regulate actin polymerization through its direct binding to Neural Wiskott-Aldrich syndrome protein (N-WASP), which subsequently activates Arp2/3 complex. Alternative splicing of this gene results in multiple transcript variants. Pseudogenes of this gene have been identified on chromosomes 3, 4, 5, 7, 8 and 20. [provided by RefSeq, Apr 2013]

Transcript Variant: This variant (3) differs in the 5' UTR compared to variant 1. Variants 1 and 3 encode the same isoform (1).