

Product datasheet for **RC210274**

Caveolin 1 (CAV1) (NM_001753) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Caveolin 1 (CAV1) (NM_001753) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: Caveolin 1
Synonyms: BSCL3; CGL3; LCCNS; MSTP085; PPH3; VIP21
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC210274 representing NM_001753
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTCTGGGGCAAATACGTAGACTCGGAGGGACATCTCTACACCGTTCCCATCCGGGAACAGGGCAACA
 TCTACAAGCCCAACAACAAGGCCATGGCAGACGAGCTGAGCGAGAAGCAAGTGTACGACGCGCACACCAA
 GGAGATCGACCTGGTCAACCGCGACCCTAAACACCTCAACGATGACGTGGTCAAGATTGACTTTGAAGAT
 GTGATTGCAGAACCAGAAGGGACACACAGTTTTGACGGCATTGGAAGGCCAGCTTCACCACCTTCACTG
 TGACGAAATACTGTTTTACCGCTTGCTGTCTGCCCTTTGGCATCCCGATGGCACTCATCTGGGGCAT
 TTACTTCGCCATTCTCTTTCCCTGCACATCTGGGCAGTTGTACCATGCATTAAGAGCTTCTGATTGAG
 ATTCAGTGCATCAGCCGTGTCTATTCCATCTACGTCCACACCGTCTGTGACCCACTCTTTGAAGCTGTTG
 GGAAAATATTCAGCAATGTCCGCATCAACTGCAGAAAGAAATA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC210274 representing NM_001753
 Red=Cloning site Green=Tags(s)

MSGGKYVDSEGHLYTVP IREQNIIYKPNKAMADELSEKQVYDAHTKEIDLVNRDPKHLNDDVVKIDFED
 VIAEPEGTHSFDGIWKASFTTFTVTKYWFYRLLSALFGIPMALIWGIYFAILSFLHIWAVVPCIKSFLIE
 IQCISRVSIIYVHTVCDPLFEAVGKIFSNVRINLQKEI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

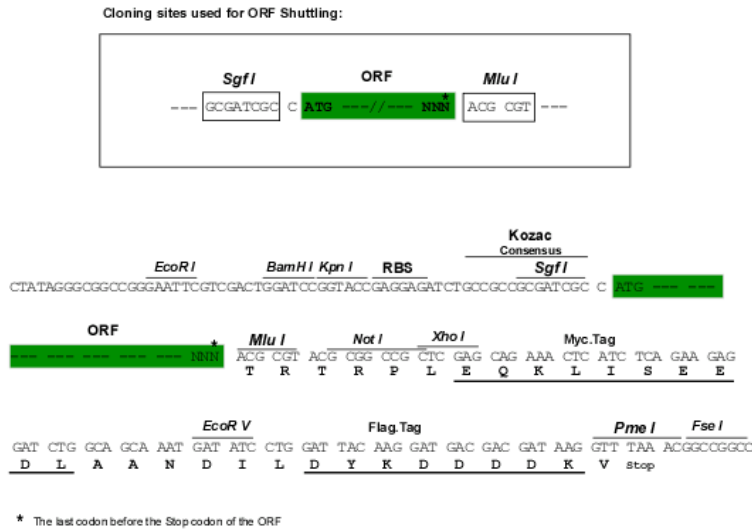
Chromatograms: https://cdn.origene.com/chromatograms/mg2667_b10.zip



[View online »](#)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001753

ORF Size: 534 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_001753.5](#)

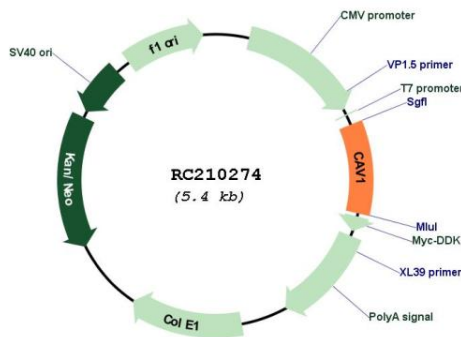
RefSeq Size: 2704 bp

RefSeq ORF: 537 bp

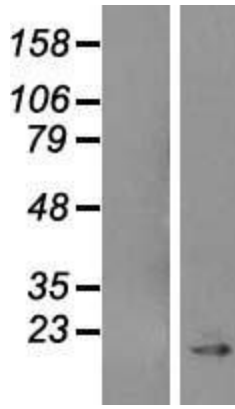
Locus ID: 857
UniProt ID: [Q03135](#)
Cytogenetics: 7q31.2
Domains: Caveolin
Protein Families: Druggable Genome, Transmembrane
Protein Pathways: Focal adhesion, Viral myocarditis
MW: 20.3 kDa

Gene Summary: The scaffolding protein encoded by this gene is the main component of the caveolae plasma membranes found in most cell types. The protein links integrin subunits to the tyrosine kinase FYN, an initiating step in coupling integrins to the Ras-ERK pathway and promoting cell cycle progression. The gene is a tumor suppressor gene candidate and a negative regulator of the Ras-p42/44 mitogen-activated kinase cascade. Caveolin 1 and caveolin 2 are located next to each other on chromosome 7 and express colocalizing proteins that form a stable hetero-oligomeric complex. Mutations in this gene have been associated with Berardinelli-Seip congenital lipodystrophy. Alternatively spliced transcripts encode alpha and beta isoforms of caveolin 1.[provided by RefSeq, Mar 2010]

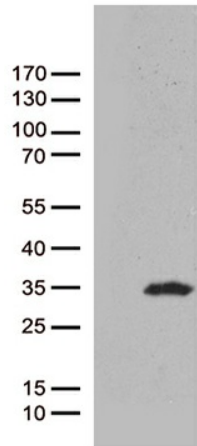
Product images:



Circular map for RC210274



Western blot validation of overexpression lysate (Cat# [LY400664]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210274 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CAV1 (Cat# RC210274, 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-CAV1 (Cat# [TA812677])(1:500). Positive lysates [LY400664] (100ug) and [LC400664] (20ug) can be purchased separately from OriGene.