

## Product datasheet for MR201562

### Cav1 (NM\_007616) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Cav1 (NM\_007616) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Cav1  
**Synonyms:** Cav; Cav-1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR201562 representing NM\_007616  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTGGGGCAAATACGTAGACTCCGAGGGACATCTTACACTGTTCCCATCCGGGAACAGGGCAACA  
 TCTACAAGCCCAACAACAAGGCCATGGCAGACGAGGTGACTGAGAAGCAAGTGTATGACGCGCACACCAA  
 GGAGATTGACCTGGTCAACCGCGACCCCAAGCATCTCAACGACGACGTGGTCAAGATTGACTTTGAAGAT  
 GTGATTGCAGAACCAGAAGGGACACACAGTTTCGACGGCATCTGGAAGGCCAGCTTCACCACCTTCACTG  
 TGACAAAATATTGTTTTACCGCTTGTGTCTACGATCTTCGGCATCCCAATGGCACTCATCTGGGGCAT  
 TTACTTTGCCATTCTCTCCTTCTGCACATCTGGGCGGTTGTACCGTGCATCAAGAGCTTCTGATTGAG  
 ATTCAGTGCATCAGCCGGTCTACTCCATCTACGTCCATACCTTCTGCGATCCACTCTTTGAAGCTATTG  
 GCAAGATATTCAGCAACATCCGCATCAGCACGCAGAAAGAGATA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR201562 representing NM\_007616  
 Red=Cloning site Green=Tags(s)

MSGGKYVDSEGHLYTVPIREQGNIIYKPNKAMADEVTEKQVYDAHTKEIDLVNRDPKHLNDDVVKIDFED  
 VIAEPEGTHSFDGIWKASFTTFTVTKYWFYRLLSTIFGIPMALIWGIYFAILSFLHIWAVVPCIKSFLIE  
 IQCISRVSIIYVHTFCDPLFEAIGKIFSNIIRISTQKEI

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI



**Cloning Scheme:**


**ACCN:** NM\_007616

**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.

**RefSeq:** [NM\\_007616.4](#)

**RefSeq Size:** 2487 bp

**RefSeq ORF:** 537 bp

**Locus ID:** 12389

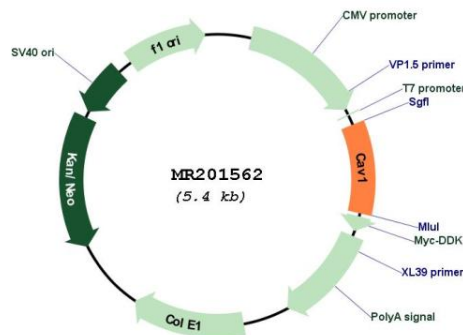
**UniProt ID:** [P49817](#)

**Cytogenetics:** 6 A2

MW: 21 kDa

**Gene Summary:** May act as a scaffolding protein within caveolar membranes (By similarity). Forms a stable heterooligomeric complex with CAV2 that targets to lipid rafts and drives caveolae formation. Mediates the recruitment of CAVIN proteins (CAVIN1/2/3/4) to the caveolae (PubMed:19546242). Interacts directly with G-protein alpha subunits and can functionally regulate their activity (By similarity). Involved in the costimulatory signal essential for T-cell receptor (TCR)-mediated T-cell activation. Its binding to DPP4 induces T-cell proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner (By similarity). Recruits CTNNB1 to caveolar membranes and may regulate CTNNB1-mediated signaling through the Wnt pathway (PubMed:10816572). Negatively regulates TGFB1-mediated activation of SMAD2/3 by mediating the internalization of TGFBR1 from membrane rafts leading to its subsequent degradation (By similarity).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR201562