

## Product datasheet for **RG229590**

### Caveolin 1 (CAV1) (NM\_001172896) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Caveolin 1 (CAV1) (NM\_001172896) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** CAV1  
**Synonyms:** BSCL3; CGL3; LCCNS; MSTP085; PPH3; VIP21  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG229590 representing NM\_001172896  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCTGGGGCAAATACGTAGACTCGGAGGGACATCTACACCGTTCCCATCCGGAACAGGGCAACA  
 TCTACAAGCCCAACAACAAGGCCATGGCAGACGAGCTGAGCGAGAAGCAAGTGTACGACGCGCACACCAA  
 GGAGATCGACCTGGTCAACCGCGACCCTAACACCTCAACGATGACGTGGTCAAGATTGACTTTGAAGAT  
 GTGATTGCAGAACCAGAAGGGACACACAGTTTTGACGGCATTGGAAGGCCAGCTTACCACCTTCACTG  
 TGACGAAATACTGTTTTACCGCTTGCTGTCTGCCCTTTGGCATCCCGATGGCACTCATCTGGGGCAT  
 TTACTTCGCCATTCTCTTTTCTGCACATCTGGGCAGTTGTACCATGCATTAAGAGCTTCTGATTGAG  
 ATTCAGTGCATCAGCCGTGTCTATTCCATCTACGTCCACACCGTCTGTGACCCACTCTTTGAAGCTGTTG  
 GAAAAATATTCAGCAATGTCCGCATCAACTGCAGAAAGAAATA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG229590 representing NM\_001172896  
 Red=Cloning site Green=Tags(s)

MSGGKYVDSEGLYTVPIREQGNIYKPNKAMADELSEKQVYDAHTKEIDLVNRDPKHLNDDVVKIDFED  
 VIAEPEGTHSFDGIWKASFTTFTVTKYWFYRLLSALFGIPMALIWGIYFAILSFLHIWAVVPCIKSFLIE  
 IQCISRVSIVHTVCDPLFEAVGKIFSNVRINLQKEI

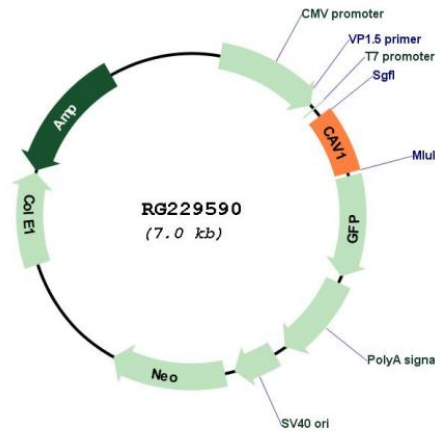
**TRTRPLE** - GFP Tag - V

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_001172896

**ORF Size:** 537 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001172896.1, NP_001166367.1</u>
<b>RefSeq Size:</b>	2647 bp
<b>RefSeq ORF:</b>	444 bp
<b>Locus ID:</b>	857
<b>Cytogenetics:</b>	7q31.2
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Focal adhesion, Viral myocarditis
<b>Gene Summary:</b>	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]