

OriGene Technologies, Inc.

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Product datasheet for RC202703

Caveolin 2 (CAV2) (NM_001233) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caveolin 2 (CAV2) (NM_001233) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Caveolin 2
Synonyms:	CAV
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	<pre>>RC202703 representing NM_001233 Red=Cloning site Blue=ORF Green=Tags(s)</pre>
	TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCC <mark>GCGATCGC</mark> C
	ATGGGGCTGGAGACGGAGAAGGCGGACGTACAGCTCTTCATGGACGACGACTCCTACAGCCACCACAGCG GCCTCGAGTACGCCGACCCCGAGAAGTTCGCGGACTCGGACCAGGACCGGGATCCCCACCGGCTCAACTC GCATCTCAAGCTGGGCTTCGAGGATGTGATCGCAGAGCCGGTGACTACGCACTCCTTTGACAAAGTGTGG ATCTGCAGCCATGCCCTCTTTGAAATCAGCAAATACGTAATGTACAAGTTCCTGACGGTGTTCCTGGCCA TTCCCCTGGCCTTCATTGCGGGAATTCTCTTTGCCACCCTCAGCTGTCTGCACATCTGGATTTTAATGCC TTTTGTAAAGACCTGCCTAATGGTTCTGCCTTCAGTGCAGACAATATGGAAGAGTGTGACAGATGTTATC ATTGCTCCATTGTGTACGAGCGTAGGACGATGCTTCTCTTTCTT
	ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAG GTTTAA
Protein Sequence:	>RC202703 representing NM_001233 <mark>Red</mark> =Cloning site Green=Tags(s)
	MGLETEKADVQLFMDDDSYSHHSGLEYADPEKFADSDQDRDPHRLNSHLKLGFEDVIAEPVTTHSFDKVW ICSHALFEISKYVMYKFLTVFLAIPLAFIAGILFATLSCLHIWILMPFVKTCLMVLPSVQTIWKSVTDVI IAPLCTSVGRCFSSVSLQLSQD
	TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Chromatograms:	https://cdn.origene.com/chromatograms/mg2448_e09.zip



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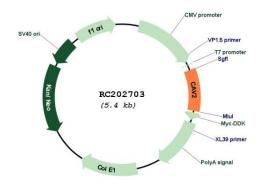
Caveolin 2 (CAV2) (NM_001233) Human Tagged ORF Clone – RC202703

Restriction Sites:	Sgfl-Mlul
Cloning Scheme:	Cloning sites used for ORF Shuttling: Sgf I ORF Miu I GCGATCGC C ATG// N12N ACG CGT
	$\frac{EcoRI}{EcoRI} = \frac{BamHI Kpn I}{BamHI Kpn I} = \frac{Kozac}{SgfI}$ CTATAGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCGCGCG
	Ecor V Flag.Tag Pme I Fse I GAT CTG GCA GAA AAT GAT ATC CTG GAT TAC AAG GAT GAC GAC GAT AAG GTT TAA ACGGCCGGCC D L A N D I L D Y K D D K V stop
	* The last codon before the Stop codon of the ORF
ACCN:	NM_001233
ORF Size:	486 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. <u>More info</u>
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:	 Centrifuge at 5,000xg for 5min. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. Close the tube and incubate for 10 minutes at room temperature. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 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:	<u>NM 001233.5</u>
RefSeq Size:	3332 bp
RefSeq ORF:	489 bp
Locus ID:	858

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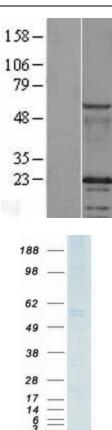
	lin 2 (CAV2) (NM_001233) Human Tagged ORF Clone – RC202703
UniProt ID:	<u>P51636</u>
Cytogenetics:	7q31.2
Domains:	Caveolin
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Focal adhesion
MW:	18.1 kDa
Gene Summary:	The protein encoded by this gene is a major component of the inner surface of caveolae, small invaginations of the plasma membrane, and is involved in essential cellular functions, including signal transduction, lipid metabolism, cellular growth control and apoptosis. This protein may function as a tumor suppressor. This gene and related family member (CAV1) are located next to each other on chromosome 7, and express colocalizing proteins that form a stable hetero-oligomeric complex. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene. Additional isoforms resulting from the use of alternate in-frame translation initiation codons have also been described, and shown to have preferential localization in the cell (PMID:11238462). [provided by RefSeq, May 2011]

Product images:



Circular map for RC202703

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Western blot validation of overexpression lysate (Cat# [LY420057]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202703 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

Coomassie blue staining of purified CAV2 protein (Cat# [TP302703]). The protein was produced from HEK293T cells transfected with CAV2 cDNA clone (Cat# RC202703) using MegaTran 2.0 (Cat# [TT210002]).

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