

## Product datasheet for **RC216175**

### VAV2 (NM\_003371) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	VAV2 (NM_003371) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	VAV2
Synonyms:	VAV-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC216175 representing NM\_003371  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGCAGTGGCGACAGTGC GGCCGCTGGCTCATCGATTGCAAGTCTGCCGCCAACACC GGGTGG  
 TGTGGCCCTCGGCCGTGGTCTTCGACCTGGCGCAGGCGCTGCGCGACGGGTCTTCTGTGCCAGCTGCT  
 GCACAACCTCTCCCCGCTCCATCGACCTCAAGGACATCAACTTCCGGCCGAGATGTCCAGTTTCTG  
 TGTTTGAAGAACATACGCACCTTCTGAAAGTCTGCCACGATAAAATTTGGATTAAGGAACAGCGAGCTGT  
 TTGACCCCTTTGACCTCTTCGATGTGCGAGACTTTGAAAGGTCACTCCGCGGTGTCGAGGCTCTCCCT  
 GCACAGCATCGCGCAGAACAAAGGGATCAGGCCTTTCCCTCAGAGGAGACCACAGAGAATGACGATGAC  
 GTCTACCCGACCTGGAGGAGCTGGCCGACGAGCATGACCTGGGGGAGGACATCTACGACTGCGTCCCGT  
 GTGAGGATGGAGGGGACGACATCTACGAGGACATCATCAAGGTGGAGGTGCAGCAGCCCATGAAATGGG  
 CATGACTGAAGATGACAAGAGAACTGCTGCCTGCTGGAGATCCAGGAGACCGAGGCCAAGTACTACCGC  
 ACCCTGGAGGACATTGAGAAGAACTACATGAGCCCTTCCGGCTGGTGTGAGCCCGGGCAGATGGCAG  
 CTGTCTTCATTAACCTGGAGGACCTGATCAAGGTGCATCAGCTTCTGAGGGCATCGACGTGTCCGT  
 GATGGTGGGGGCGACGCTGGCCAAGGTCTTCTCGATTTCAAGGAAAGGCTTCTGATCTACGGGGAG  
 TACTGCAGCCACATGGAGCAGCCCAGAACACACTGAACCAGCTCCTGGCCAGCCGGGAGGACTTACGGC  
 AGAAAGTCGAGGAGTGCACACTGAAGGTCCAGGATGGAATTTAAGCTGCAAGACCTGCTGGTGGTCCC  
 CATGCAGAGGGTCTCAAATACCACTGCTCTTGAAGGAGCTTCTGAGCCATTCTGCGGAACGGCCTGAG  
 AGGCAGCAGCTCAAAGAAGCACTGGAAGCCATGCAGGACTTGGCGATGTACATCAATGAAGTTAAACGGG  
 ACAAGGAGACCTTGAGGAAAATCAGCGAATTTCAAGTCTATAGAAAATTTGCAAGTGAACCTGAGGAG  
 ATTTGGAAGACCAAAGATTGACGGGAACTGAAAGTCCGGTCCATAGTCAACCACACCAAGCAGGACAGG  
 TACTTGTCTCTGTTTGACAAGGTGGTCACTCGTCTGCAAGCGGAAGGGCTACAGCTACGAGCTCAAGGAGA  
 TCATCGAGCTGCTGTTCCACAAGATGACCGACGCCCCATGAACAACAAGGACGTCAAGAAGTGGTCCCTA  
 CGGCTTCTACCTAATTCACCTTCAAGGAAAGCAGGGCTTCCAGTTTTTCTGCAAAACAGAAGATATGAAG  
 AGGAAGTGGATGGAGCAGTTTGGATGGCCATGTCAAACATCAAGCCAGACAAAGCCAATGCCAACACC  
 ACAGTTTCCAGATGTACACGTTTGACAAGACCACCAACTGCAAAGCCTGCAAAATGTTTCTCAGGGGCAC  
 CTTCTACCAGGGATACATGTGTACCAAGTGTGGCGTGGGGCACACAAGGAGTGCCTGGAAGTGATACCT  
 CCCTGCAAGTTCACTTCTCCTGCAGATCTGGACGCTCCGGAGCGGGACCAGGTCCCAAGATGGTGGCCA  
 TGCAGAATTACCATGGCAACCCAGCCCTCCCGGAAGCCTGTGCTGACCTTCCAGACGGGCGACGTGCT  
 TGAGCTGCTGAGGGGCGACCCTGAGTCTCCGTGGTGGGAGGGTCTGTTGATAAAACCAGGAAGTCAAGG  
 TATTTCCCCAGCTCATCTGTGAAGCCCTGCCCTGTGGATGGAAGGCCGCCCATCAGCCGGCCGCCATCCC  
 GGGAGATCGACTACACTGCATACCCCTGGTTTGCAGGTAACATGGAGAGGCAGCAGACGGACAACCTGCT  
 CAAGTCCCACGCCAGCGGGACCTACCTGATCAGGGAGCGGCTGCCGAGGCTGAGCGCTTTGCAATAAGC  
 ATCAAGTTCAATGATGAGGTGAAGCACATCAAGGTGGTGGAGAAGGACAACCTGGATCCACATCACAGAGG  
 CCAAGAAATTCGACAGCCTCCTGGAGTTGGTGGAGTACTACAGTGCCACTCACTGAAGGAGAGCTTCAA  
 GCAGCTGGACACCACACTCAAGTACCCCTACAAGTCCCGGAACGTTCCGGCTCCAGGGCCTCCAGCCGG  
 TCCCCAGTGTTCAGCCCCGCGTCACTCGGCACAGCTGTGGCCAGGTATAACTTTGCCGCCGAGATATGA  
 GGGAGCTTTCGCTGCGGGAGGGTACGTTGGTGGAGATCTACAGCCGCATCGGCGGAGACCAGGGCTGGT  
 GAAGGGCGAGACCAACGGACGGATTGGCTGGTTTCTTCAACGTACGTAGAAGAGGAGGGCATCCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC216175 representing NM\_003371  
Red=Cloning site Green=Tags(s)

MEQWRQCGRWLDCKVLPPNHRVWPSAVVFDLAQALRDGVLLCQLLHNLSPGSIDLKDINFRPQMSQFL  
CLKNIRTFKLVCHDKFGLRNSELPDFDLFDVDFGKVISAVSRLSLHSLAQNKGIRPFSEETTENDDD  
VYRSLEELADEHDLGEDIYDCVPCEDGGDDIYEDIKVEVQPMKMGMTEDDKRNCCLLEIQETEAKEYR  
TLEDIEKNYMSPLRLVLSPADMAAVFINLEDLIKVHHSFLRAIDVSVMVGGSTLAKVFLDFKERLLIYGE  
YCSHMEHAQNTLNQLLASREDFRQKVEECTLKVDGKFKLQDLLVPMQRLKYHLLKELLSHAERPE  
RQQLKEALEAMQDLAMYINEVKRDKETLRKISEFQSSIENLQVKLEEFGRPKIDGELKVRISIVNHTKQDR  
YLFLFDKVVIVCKRKGYSYELKEIIELLFHKMTDDPMNNKDVKKWSYGFYLIHLQKQGFQFFCKTEDMK  
RKWMEQFEMAMSNIKPDKANANHHSFQMYTFDKTTNCKACKMFLRGTFYQGYMCTKCGVGAKHECLEVIP  
PCKFTSPADLDASGAGPGPKMVAMQNYHGPNAPPKPVLTFTGDVLELLRGDPESPWWEGRLVQTRKSG  
YFPSSSVKPCVPDGRPPISRPPSREIDYTAYPWFAGNMRQQTDLNLLKSHASGTYLIRERPAAEAERFAIS  
IKFNDEVKHIKVEKDNWIIHTEAKKFDSLELVEYYQCHSLKESFKQLDITLKYPKSRERSASRASSR  
SPVFTPRVIGTAVARYNFAARDMRELSLREGDVVRIYSRIGGDQGWKGETNGRIGWFPSTYVEEEGIQ

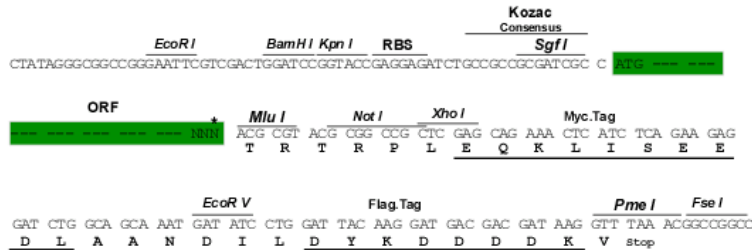
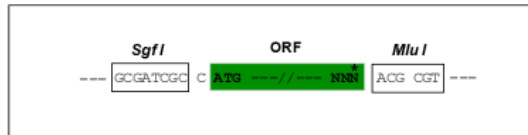
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mg2916\\_h01.zip](https://cdn.origene.com/chromatograms/mg2916_h01.zip)

Restriction Sites: Sgfl-Mlul

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_003371

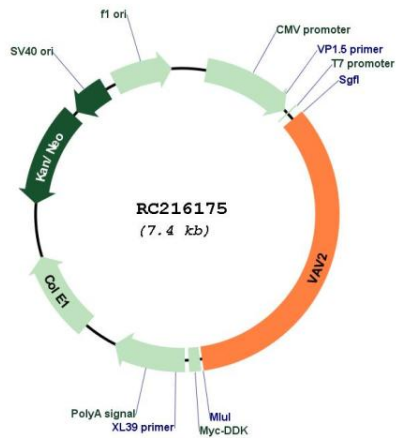
**ORF Size:** 2517 bp

**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.

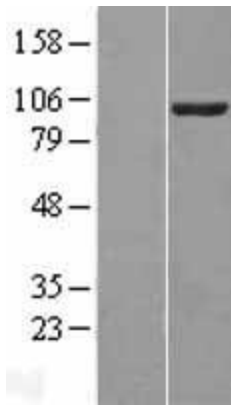
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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>	<a href="#">NM_003371.2</a> , <a href="#">NP_003362.2</a>
<b>RefSeq Size:</b>	4707 bp
<b>RefSeq ORF:</b>	2520 bp
<b>Locus ID:</b>	7410
<b>UniProt ID:</b>	<a href="#">P52735</a>
<b>Cytogenetics:</b>	9q34.2
<b>Domains:</b>	RhoGEF, SH2, SH3, CH, PH, DAG_PE-bind
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	B cell receptor signaling pathway, Chemokine signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Leukocyte transendothelial migration, Natural killer cell mediated cytotoxicity, Regulation of actin cytoskeleton, T cell receptor signaling pathway
<b>MW:</b>	96.9 kDa
<b>Gene Summary:</b>	VAV2 is the second member of the VAV guanine nucleotide exchange factor family of oncogenes. Unlike VAV1, which is expressed exclusively in hematopoietic cells, VAV2 transcripts were found in most tissues. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2008]

Product images:



Circular map for RC216175



Western blot validation of overexpression lysate (Cat# [LY418726]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216175 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified VAV2 protein (Cat# [TP316175]). The protein was produced from HEK293T cells transfected with VAV2 cDNA clone (Cat# RC216175) using MegaTran 2.0 (Cat# [TT210002]).