

Product datasheet for **SC116729**

VAV1 (NM_005428) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	VAV1 (NM_005428) Human Untagged Clone
Tag:	Tag Free
Symbol:	VAV1
Synonyms:	VAV
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC116729 sequence for NM_005428 edited (data generated by NextGen Sequencing)

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ATGGAGCTGTGGCGCCAATGCACCCACTGGCTCATCCAGTGCCGGGTGCTGCCGCCAGC
CACCGCGTGACCTGGGATGGGGCTCAGGTGTGTGAACTGGCCAGGCCCTCCGGGATGGT
GTCCTTCTGTGTGACGTGCTTAAACAACCTGCTACCCCATGCCATCAACCTGCGTGAGGTC
AACCTGCGCCCCCAGATGTCCCAGTTCCTGTGCCTTAAAGAACATTAGAACCTTCTGTCC
ACCTGTGTGAGAAGTTCGGCCTCAAGCGGAGCGAGCTTTCGAAGCCTTTGACCTCTTC
GATGTGCAGGATTTGGCAAGGTCTACACCCTGTCTGCTCTGTCTGACCCCGATC
GCCCAGAACAGGGGATCATGCCCTTCCCACCAGGAGGAGAGTGTAGGTGATGAAGAC
ATCTACAGTGGCCTGTCCGACCAGATCGACGACACGGTGGAGGAGGATGAGGACCTGTAT
GACTGCGTGGAGAATGAGGAGGCGGAAGGCGACGAGATCTATGAGGACCTCATGCGCTCG
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GAGGACCTGCTTGTGTTTATACTCACTTCTAAAGGAGATGAAGGAAGCCCTGGGCACC
CCTGGCGCAGCCAATCTCTACCAGGTCTTCATCAATAACAAGGAGAGGTTCTCTGCTAT
GGCCGCTACTGCAGCCAGGTGGAGTCCAGCCAGCAAACACCTGGACCGTGTGGCCGACGC
CGGGAGGACGTGCAGATGAAGCTGGAGGAATGTTCTCAGAGAGCCAACAACGGGAGGTTT
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CAGGAGCTGGTGAACACACGCAGGAGGCGATGGAGAAGGAGAACCTGCGGCTGGCCCTG
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CGACAGATCACCATTCCAGCTGTCCATTGAGAACCTGGACCAGTCTCTGGCTCACTAT
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GACAGGTATGCCTTCTGCTCGACAAAGCTCTACTCATCTGTAAGCGCAGGGGAGACTCC
TATGACCTCAAGGACTTTGTAACCTGCACAGCTTCCAGGTTTCGGGATGACTCTTCAGGA
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CTGTGCGTCAAGGAGGGTGACATCATCAAGATCCTTAACAAGAAGGGACAGCAAGGCTGG
TGGCGAGGGGAGATCTATGGCCGGGTGGCTGTTCCCTGCCAACTACGTGGAGGAAGAT
TATTCTGAATACTGCTGA

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Clone variation with respect to NM_005428.2

5' Read Nucleotide Sequence: >OriGene 5' read for NM_005428 unedited
CACGAGAATGGACTGTGGCGCCAATGCACCCACTGGCTCATCCAGTGCCGGGTGCTGCCG
CCCAGCCACCCGCTGACCTGGGATGGGGCTCAGGTGTGTGAACTGGCCCAGGCCCTCCGG
GATGGTGTCTTCTGTGTGAGCTGCTTAACAACCTGCTACCCCATGCCATCAACCTGCGT
GAGGTCAACCTGCGCCCCAGATGTCCCAGTTCCTGTGCCTTAAGAACATTAGAACCTTC
CTGTCCACCTGCTGTGAGAAGTTCGGCCTCAAGCGGAGCGAGCTTTCGAAGCCTTTGAC
CTCTTCGATGTGCAGGATTTTGGCAAGTCATCTACACCCGTGCTGCTCTGTCTGCTGGACC
CCGATCGCCAGAACAGGGGGATCATGCCCTTCCCACCGAGGAGAGTGTAGGTGAT
GAAGACATCTACAGTGGCTGTCCGACCAGATCGACGACACGGTGGAGGAGGATGAGGAC
CTGTATGACTGCGTGGAGAATGAGGAGGCGGAAGGCGACGAGATCTATGAGGACCTCATG
CGCTCGGAGCCCGTGTCCATGCCGCCAAGATGACAGAGTATGACAAGCGCTGCTGCTGC
CTGCGGGAGATCCAGCAGACGGAGGAGAAGTAACTGACACGCTGGGCTCCATCCAGCAG
CATTTCTGAAGCCCCTGNCACGGTTCCTGAAACCTCAAG

3' Read Nucleotide Sequence: >OriGene 3' read for NM_005428 unedited
TTTTTGGTGTGACTATGNACNCGCGCCGACTAGNGATCGATTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTATATCCACCTTCATCCTTTTATTAA
ATGGAACCCCTTGAGCCCCGTTTGCTTGAGGGGACCCAAAAGAGAAATCGGGGTGTTAT
AAATTAACCATGTCAGGGCACATCCCGGGAGCACCGCCAGCTGGACACTGGCCTCCTCCG
TCCATCCCAAAATCTCCACCCGCCGGGAGCTGTCACAACCCCTGGGTCCGCTGCCTGCC
ACCCCGGGCTCAAACCTGGAGTTTCTCGTCTCTTTGCCAAGGCCCCAGGGCTCAACAGT
TTTCAAATAATCTTCTCCACGTAGTTGGCAGGGAACCGCAACCCCGCCATAGATTT
CCCTTGGCACCAACCTTGGTGTCCCTTTTTGTTAAGGATCTTGAAGAAGTCCCCCTCT
TGAGCCACAGCTCTGATACGGTCTCGGGCGCAAAAATATAGAGGGCTTTGGCTGTGCCAA
AATACTTTGGGCTTCCACTGGTGGCCTGGTGAAGGTTCTTTTTCAGGCTCCTTGAAGG
GGAACAGGAAGGTGGGTGTCCAAAACCTTGAGCAACCCTTTAAAGAGTTCTGCCGGTAA
AACACCACCAACTCCGTAAGCCCCCGGAAAACCTTTTTCTGTGATCCGGGACAATCCC
TTTGGAGCCAGAAATTTAAAGGCTGGCCCCGAACTTTTTTTTAAATGGTGAAGGGAAAAT
TTGTGGGTTCCCTAACCTTTTGGCGGACCAGAAAACCCGTTCTAAAGGGTGGCCAGA
AGCTTTTGGCCCTGGCCCCCCCCAGGGGGCGGGTACACAAAAATAC

Restriction Sites: NotI-NotI

ACCN: NM_005428

Insert Size: 2800 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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:	<ol style="list-style-type: none">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_005428.2 , NP_005419.2
RefSeq Size:	2888 bp
RefSeq ORF:	2538 bp
Locus ID:	7409
UniProt ID:	P15498
Cytogenetics:	19p13.3
Domains:	RhoGEF, SH2, SH3, CH, PH, DAG_PE-bind
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	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
Gene Summary:	<p>This gene is a member of the VAV gene family. The VAV proteins are guanine nucleotide exchange factors (GEFs) for Rho family GTPases that activate pathways leading to actin cytoskeletal rearrangements and transcriptional alterations. The encoded protein is important in hematopoiesis, playing a role in T-cell and B-cell development and activation. The encoded protein has been identified as the specific binding partner of Nef proteins from HIV-1. Coexpression and binding of these partners initiates profound morphological changes, cytoskeletal rearrangements and the JNK/SAPK signaling cascade, leading to increased levels of viral transcription and replication. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Apr 2012]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).</p>