

Product datasheet for **RG220550**

VAV3 (NM_006113) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	VAV3 (NM_006113) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	VAV3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG220550 representing NM_006113
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

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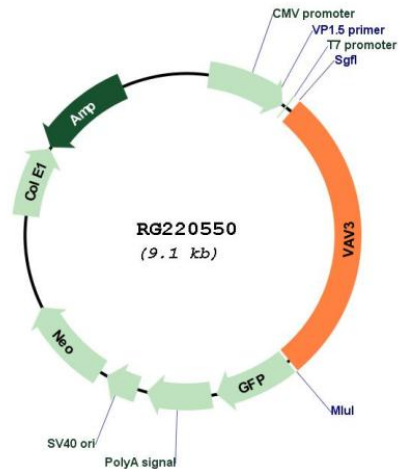
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG220550 representing NM_006113
 Red=Cloning site Green=Tags(s)

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MEPWKQCAQWL I HCKVLPTNHRVTWDSAQVFDLAQTLRDGVLLCQLLNNLRAHSINLKEINLRPQMSQFL
CLKNIRTFLTACCETFGMRKSELF EAFDLFDVRDFGKVIETLSRLSRTPIALATGIRPFPT EESINDEDI
YKGLPDLIDETLVEDEEDLYDCVYGEDEGGEVYEDLMKAEAAHQPKCPENDIRSCCLAEIKQTEEKYTET
LESIEKYFMAPLKRFLTAAEFDSVFINIPELVKLRNLMEIHDSIVNKNDQNL YQVFINYKERLVIYGO
YCSGVESAISSLDYISKSKEDVKLKEECSKRANNGKFTLRDLLVPMQVRVLYHLLLQELVKHTTDPT E
KANLKLALDAMKDLAQYVNEVKRDNETLREIKQFQLSIENLNQPVLLFGRPQGDGEIRITTLDKHTKQER
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KKWLEQFEMALS NIRPDYADSNFHDFKMHTFTRVTSCKVCQMLLRGTFYQGYLCFKCGARAHKECLGRVD
NCGRVNSGEQGT LKLPEKRTNGLRRTPKQVDPGLPKMQVIRNYSGT PPPALHEGPPLQLQAGDTELLKG
DAHSLFWQGRNLASGEVGFPSDAVKPCPCVPKPVDYSCQPWYAGAMERLQAETELINRVNSTYLVRHRT
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HSAGQRGNRAGNSLLSPKVLGIAIARYDFCARDMRELSLLKGDVVKIYTKMSANGWWRGEVNGRVGWFP S
TYVEEDE
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TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-Mlul

Plasmid Map:


ACCN: NM_006113

ORF Size: 2541 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_006113.3](#), [NP_006104.3](#)

RefSeq Size: 4768 bp

RefSeq ORF: 2544 bp

Locus ID: 10451

UniProt ID: [Q9UKW4](#)

Cytogenetics: 1p13.3

Domains:	RhoGEF, SH2, SH3, CH, PH, DAG_PE-bind
Protein Families:	Druggable Genome
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:	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. This gene product acts as a GEF preferentially for RhoG, RhoA, and to a lesser extent, RAC1, and it associates maximally with the nucleotide-free states of these GTPases. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Jul 2008]