

Product datasheet for **MG210849**

Vil1 (NM_009509) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Vil1 (NM_009509) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Vil1
Synonyms:	Vil
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>MG210849 representing NM_009509
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACTAAACTGAATGCCAAGTCAAAGGCTCTCTCAACATCACCCTCCCGGATACAGATATGGAGGA
 TCGAGGCTATGCAGATGGTACCTGTTCTTCCAGCACCTTGGAAAGCTTCTTCGATGGTACTGCTATGT
 AGTCTGGCTATCCACAAGACCAGCAGCACTCTCTCTATGATATCCACTACTGGATTGGCCAGGACTCG
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 TCCAGCACCGGAGGTTCAAGGCAACGAGAGCGAGACTTCCGGAGCTACTTCAAGCAAGGCCTTGAT
 CCGGAAAGGGGAGTGGCTTCCGGCATGAAGCAGTGAACAACTCCTGTGATGTCCAGCGACTGTTG
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 CCCGAAAGTGGACGTTTTCACTGCCAATACCAGTCTGAGTCTGGGCCCTGCCACCTTCCCCCTGGAG
 CAGCTGGTAAACAAGTCTGTAGAGGATCTCCCTGAGGGTGTGGACCCAGCAGGAAGGAGGACCTGT
 CCACCGAAGACTTCACTAGGCCTTGGGCATGACTCCAGCTGCCTTCTGCCCCTGCCTCGATGGAGCA
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ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

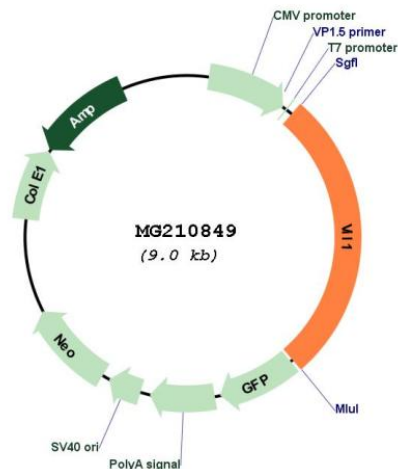
Protein Sequence: >MG210849 representing NM_009509
 Red=Cloning site Green=Tags(s)

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MTKLNAQVKGSLNITTPGIQIWRIEAMQMPVPSSTFGSFFDGDYVVLAIHKTSSTLSYDIHYWIGQDS
SQDEQGAAYITTMDDYLKGRAVQHREVQGNSETFRSYFKQGLVIRKGGVASGMKHVETNSCDVQRLL
HVKGKRNVLAGEVEMSWKSFNRGDVFLDLGKLIQWNGPESNRMERLRGMALAKEIRDQERGGRTYVGV
VDGEKEGDSPLMAIMNHVLPGRKELKAAISDSVVEPAKAAALKLYHVSDSEGKLVVREVATRPLTQDLL
KHEDCYILDQGGKIFVWKGKNANAQERSGAMSQALNFIKAKQYPPSTQVEVQNDGAESPFIQQLFKWT
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FYGGDCYLLLYTYLIGEKQHLLYIWQGSQASQDEIAASAYQAVLLDQKYNDEPVQIRVTMGKEPPHLS
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GCSGDEREMAKMVADTISRTEKQVVVEGQEPANFWMALGGKAPYANTKRLQENQVITPRLFECNSQTGR
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GHEPPTFTGWFLAWDPFKWSNTKSYDDLKAEKLSGDSQIADEVMSPKVDVFTANTSLSSGPLPTFPLE
QLVNKSVEDLPEGVDPSRKEEHLSTEDFTRALGMTPAAFSALPRWKQNIKKEKGLF
  
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TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Plasmid Map:


ACCN: NM_009509

ORF Size: 2481 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_009509.2](#)

RefSeq Size: 3060 bp

RefSeq ORF: 2484 bp

Locus ID: 22349

UniProt ID: [Q62468](#)

Cytogenetics: 1 38.54 cM

Gene Summary: Epithelial cell-specific Ca(2+)-regulated actin-modifying protein that modulates the reorganization of microvillar actin filaments. Plays a role in the actin nucleation, actin filament bundle assembly, actin filament capping and severing. Binds phosphatidylinositol 4,5-bisphosphate (PIP2) and lysophosphatidic acid (LPA); binds LPA with higher affinity than PIP2. Binding to LPA increases its phosphorylation by SRC and inhibits all actin-modifying activities. Binding to PIP2 inhibits actin-capping and -severing activities but enhances actin-bundling activity. Regulates the intestinal epithelial cell morphology, cell invasion, cell migration and apoptosis. Protects against apoptosis induced by dextran sodium sulfate (DSS) in the gastrointestinal epithelium. Appears to regulate cell death by maintaining mitochondrial integrity. Enhances hepatocyte growth factor (HGF)-induced epithelial cell motility, chemotaxis and wound repair. Upon *S.flexneri* cell infection, its actin-severing activity enhances actin-based motility of the bacteria and plays a role during the dissemination.[UniProtKB/Swiss-Prot Function]