

## Product datasheet for **RG204841**

### **MVP (NM\_005115) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MVP (NM_005115) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MVP
Synonyms:	LRP; VAULT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG204841 representing NM\_005115  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCAACTGAAGAGTTCATCATCCGCATCCCCCATACCACTATATCCATGTGCTGGACCAGAACAGCA  
 ACGTGTCCCGTGTGGAGGTCGGGCCAAAGACCTACATCCGGCAGGACAATGAGAGGGTACTGTTTGCCCC  
 CATGCGCATGGTGACCGTCCCCCACGTCACACTGACAGTGGCCAACCCTGTGTCTCGGGATGCCAG  
 GGCTTGGTGTGTTGATGTCACAGGGCAAGTTCGGCTTCGCCACGCTGACCTCGAGATCCGGCTGGCCC  
 AGGACCCCTTCCCCTGTACCCAGGGGAGGTGCTGAAAAGGACATCACACCCCTGCAGGTGGTTCTGCC  
 CAACACTGCCCTCCATCTAAAGGCGCTGCTTATTTTGGAGATAAAGATGGAGACAAGGTGGTGGCAGGA  
 GATGAGTGGCTTTTCGAGGGACCTGGCACGTACATCCCCCGAAGGAAGTGGAGGTCGTGGAGATCATT  
 AGGCCACCATCATCAGGCAGAACCAGGCTCTGCGGCTCAGGGCCCGCAAGGAGTGTGGACCGGGACGG  
 CAAGGAGAGGGTGACAGGGGAAGATGGCTGGTACCACAGTAGGGCGTACCTCCAGCGGTGTTTGGAG  
 GAGGTTCTGGATTTGGTGGACGCCGTATCCTTACGAAAAGACAGCCCTGCACCTCCGGCTCGGCGGA  
 ACTTCCGGGACTTCAGGGGAGTGTCCCGCCGACTGGGGAGGAGTGGCTGGTAACAGTGCAGGACACAGA  
 GGCCACGTGCCAGATGTCCACGAGGAGGTGCTGGGGTGTGCCCATCACACCCCTGGGCCCCACAAC  
 TACTGCGTGATTCTCGACCCTGTCCGACCGGATGGCAAGAATCAGCTGGGCGAGAAGCGCGTGGTCAAGG  
 GAGAGAAGTCTTTTTCTCCAGCCAGGAGAGCAGCTGGAACAAGGCATCCAGGATGTGTATGTGCTGTC  
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 GGTGCGCGCTGTGATTGGAAGCACCTACATGCTGACCCAGGACGAAGTCTGTGGGAGAAAAGAGCTGCCT  
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 GCAACTGCAGTGGCCTACAACGGCCTTTGAGGTGAATGACCGGAAGGACCCCAAGAGACGGCCAAG  
 CTCTTTTCAGTGCCAGACTTTGTAGGTGATGCCTGCAAAGCCATCGCATCCCGGCTGCGGGGGCGGTGG  
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 CTCTTCAACACAGCCTTTGGGCTGCTGGGGATGGGGCCGAGGGTCAAGCCCTGGCAGAAAGGTGGCCA  
 GTGGGCCAGCCCTGGGAGGGGATATCCCCCAGTCTGCTCAGGCCCTCAAGTCTGGAGACAACCA  
 CGTGGTGCCTGTACTGCGC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – **GTTTAA**

**Protein Sequence:** >RG204841 representing NM\_005115  
 Red=Cloning site Green=Tags(s)

MATEEFIIIRIPPYHYIHVLDQNSNVSVEVGPPTYIRQDNERVLFAPMRMVTVPPRHYCTVANPVS RDAQ  
 GLVLF DVTGQVRLRHADLEIRLAQDPFPLYPGEVLEKDI TPLQVVL PNTALHLKALLDFEDKDGDKVVAG  
 DEWLFE GPGTYIPRKEVEVVEIIQATIIRQNQALRLRARKECWD RDGKERVTGEEWLVTTVGAYLPAVFE  
 EVLDLVD AVILTEKTALHLRARRNFRDFRGVSRRTGEEWLVTVQDTEAHVPDVH EEVLGVVPIITLGP HN  
 YCVILDPV GPDGKNQLGQKR VVKGEKSFFLQPGEQLEQGIQDVVYV LSEQQLLLRALQPLEEGE DEEKVS  
 HQAGDHWLIRGPLEYVPSAKVEVVEERQA IPLDENEGIYVQDVKTGKVR A VIGSTYMLTQDEVLWEKELP  
 PGVEELLNKGQDPLADRGEKDTAKSLQPLAPRNKTRVVS YRVP HNAAVQVYDYREKRARV VFGPELVSLG  
 PEEQFTVLSL SAGRPKRPHARRALCLLLGPDFFTDVIT IETADHARLQLQ LAYNWHFEVNDRKDPQETAK  
 LFSVPDFVGDACKAIASRVRGAVASVTFDDFHKNSARI IRTAVFGFETSEAKGPDGMALPRPRDQAVFPQ  
 NGLVVSSVDVQSV EPVDQRTRDALQRSVQLAIEIT TNSQEA AAKHEAQRLEQEARGLERQKILDQSEAE  
 KARKELLEAL SMAVESTGTAKAEAESRAEAARIEGEGSVLQAKLKAQALAIETEAELQRVQK VRELEL  
 VYARAQLELEVSKAQQLAEVEVKKFKQMT EAIGPSTIRDLAVAGPEMQVKLLQSLGLKSTLITDGSTPIN  
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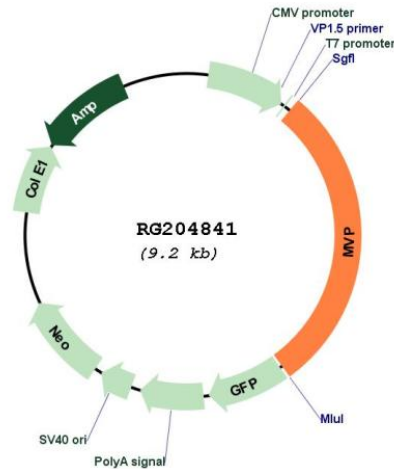
TRTRPLE - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_005115

**ORF Size:** 2679 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\\_005115.5](#)

**RefSeq Size:** 2821 bp

**RefSeq ORF:** 2682 bp

**Locus ID:** 9961

**UniProt ID:** [Q14764](#)

**Cytogenetics:** 16p11.2

**Domains:** Vault

**Protein Families:** Druggable Genome

**Gene Summary:** This gene encodes the major component of the vault complex. Vaults are multi-subunit ribonucleoprotein structures that may be involved in nucleo-cytoplasmic transport. The encoded protein may play a role in multiple cellular processes by regulating the MAP kinase, JAK/STAT and phosphoinositide 3-kinase/Akt signaling pathways. The encoded protein also plays a role in multidrug resistance, and expression of this gene may be a prognostic marker for several types of cancer. Alternatively spliced transcript variants have been observed for this gene. [provided by RefSeq, May 2012]