

## Product datasheet for **RG202151**

### VPS33A (NM\_022916) Human Tagged ORF Clone

#### Product data:

|                           |                                           |
|---------------------------|-------------------------------------------|
| Product Type:             | Expression Plasmids                       |
| Product Name:             | VPS33A (NM_022916) Human Tagged ORF Clone |
| Tag:                      | TurboGFP                                  |
| Symbol:                   | VPS33A                                    |
| Synonyms:                 | MPSPS                                     |
| Mammalian Cell Selection: | Neomycin                                  |
| Vector:                   | pCMV6-AC-GFP (PS100010)                   |
| E. coli Selection:        | Ampicillin (100 ug/mL)                    |



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**ORF Nucleotide Sequence:**

>RG202151 representing NM\_022916  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGC**C

ATGGCGGCTCATCTGTCCTACGGCCGAGTGAACCTAAACGTGTTGCGCGAGGCGGTGCGTCGCGAGCTGC  
 GCGAGTTCCTGGACAAGTGCGCAGGAAGCAAGGCAATAGTTTGGGATGAATACCTAACTGGACCCTTTGG  
 CCTGATTGCACAGTATTCACTATTGAAGGAACATGAAGTGGAATAATGTTTACACTTAAAGGAAATCGT  
 TTGCCGCGAGCTGATGTGAAGAATAATTTTTTTTGTACAGCCAGGCTAGAGTTGATGGATATAATCG  
 CTGAAAACGTGCTCAGTGAAGATAGACGAGGCCAACGAGAGATTTTCATATTCTGTTTGTCCACGCCG  
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 AACGATCCCCAGATCTTTGGGAAAGGAGAATGCGCTCGCAAGTGCCAATATGATGATCAGGATGAAG  
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 TGGATTTATTAACACCTCTTGCCACTCAGCTGACATATGAAGGACTCATTGATGAAATTTATGGCATTCA  
 GAACAGTTATGTGAAATTACCTCCAGAGAAATTTGCACCTAAGAAACAGGGCGATGGTGGTAAGGACCTC  
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 GAAAACATTACGCCTCTGGATGGATGATGTTAATGAGCAAAACCCACGGACATATCGTATGTGTACAGT  
 GGGTATGCCCCGCTCAGTGTGCGCTGGCCAGCTGCTTCCCGGCTGGCTGGCGGAGCATCGAGGAGG  
 TCCTCCGATCCTCCAGGGCCCCACTTTGAGGAGCGGCAGCCACTGCCACAGGACTGCAGAAGAAACG  
 TCAACCGGAGAAAACCGAGTGACTCTGATATTTTCTTGGGGCGTAACCTTCGCTGAAATTGCTGCC  
 CTGCGATTTCTCTCCAGTTGGAAGATGGAGGTACAGAATATGTCATTGCCACCCTAACTAATGAATG  
 GAACCAGTTGGATAGAGGCTCTGATGAAAAACCTTTC

**ACGCGTACGCGGCGGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG202151 representing NM\_022916  
 Red=Cloning site Green=Tags(s)

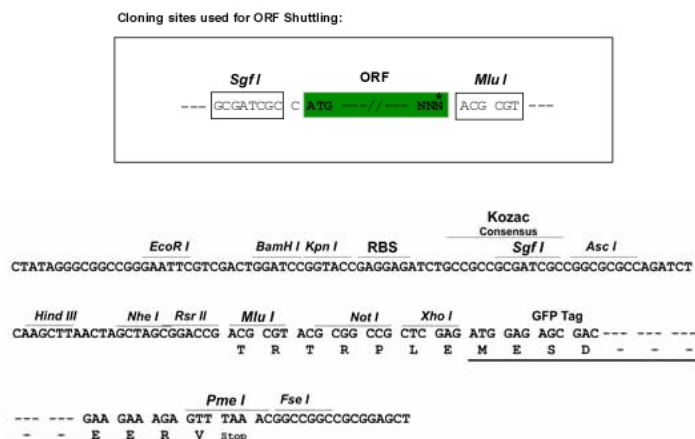
MAAHSYGRVNLNVLREAVRRELREFLDKCAKSAIVWDEYLTGPFGLIAQYSLLKEHEVEKMFLLKGNR  
 LPAADVKNIIFFVRPRLELMDIIAENVLSEDRRGPTRDFHILFVPRRSLLCEQRLKDLGVLGSLFHREEY  
 SLDLIPFDGDLSSMESEGAFFKECYLEGDQTSLYHAAGLMTLQALYGTIPQIFGKGECARQVANMMIRMK  
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 PTEAKKLQNSAEELYAEIRDKNFNAVGSVLSKKAKIIISAAFEERHNAKTVEIKQFVSQPLPHMQAARG  
 LANHTSIAELIKDVTTSSEDFDKLTVEQEFMSGIDTDKVNYYIEDCIAQKHSLLIKVLRVLQSVCSNGL  
 KQKVLDDYKREILQTYGYEHILTLHNLEKAGLLKPQTGGRNNYPTIRKTLRLWMDVDVNEQNPTDISYVYS  
 GYAPLSVRLAQLLSRPGWRSIEEVLRIPLPGPHFEERQPLPTGLQKKRQPGENRVTLIFFLGGVTFAEIAA  
 LRFLSQLDGGTEYVIATTKLMNGTSWIEALMEKPF

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

## Cloning Scheme:



ACCN: NM\_022916

ORF Size: 1788 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM\\_022916.6](#)

RefSeq Size: 2628 bp

RefSeq ORF: 1791 bp

Locus ID: 65082

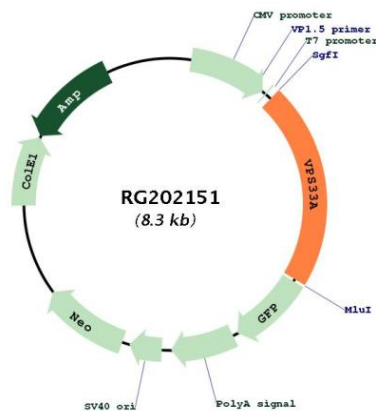
UniProt ID: [Q96AX1](#)

Cytogenetics: 12q24.31

Domains: Sec1

**Gene Summary:** This gene encodes a tethering protein and a core subunit of the homotypic fusion and protein sorting (HOPS) complex. The HOPS complex and a second endosomal tethering complex called the class C core vacuole/endosome tethering (CORVET) complex, perform diverse functions in endocytosis including membrane tethering, RabGTPase interaction, activation and proofreading of synaptic-soluble N-ethylmaleimide-sensitive factor attachment receptor (SNARE) assembly to drive membrane fusion, and endosome-to-cytoskeleton attachment. The HOPS complex controls endosome maturation as well as endosome traffic to the lysosome. This complex is essential for vacuolar fusion and is required for adaptor protein complex 3-dependent transport from the golgi to the vacuole. The encoded protein belongs to the Sec1/Munc18 (SM) family of SNARE-mediated membrane fusion regulators. Naturally occurring mutations in this gene are associated with a novel mucopolysaccharidosis-like disease. [provided by RefSeq, Apr 2017]

## Product images:



Circular map for RG202151