

## Product datasheet for **RG238285**

### VPS45A (VPS45) (NM\_001279355) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	VPS45A (VPS45) (NM_001279355) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	VPS45A
Synonyms:	H1; H1VPS45; SCN5; VPS45A; VPS45B; VPS54A; VSP45; VSP45A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG238285 representing NM_001279355. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTGAACCGTCAGAATTTGTAAACGACTACTATAGGGCGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAACGTGGTTTTGTGTGAAGCAGTACCCACATTTGTTTTCCCTCAATATTTGGGTTGCTGCCAG
GGTCGAAATTGGGATCCAGCCAGCTATCTAGAACAACCTCAAGGGCTTACAGCTCTCCTTTTATCTCTG
AAGAAGTGTCCCATGATTCGTTATCAGCTCTCATCAGAGGCAGCAAGAGACTTGCAGAGTGCCTTAAG
CAAGTGATAACTAAAGAATGAAGTGTGTAATTCGTCGGACAGAGGTTCCCTCCATTGCTCCTTATT
TTAGATCGCTGTGATGATGCCATCACCCATTGCTAAACCAGTGGACATATCAGGCCATGGTCCACGAA
CTACTAGGCATAAACAACATCGGATTGATCTTCCAGAGTGCCTGGGAATCAGTAAAGACTTAAGAGAA
GTGGTCTATCTGCTGAAAATGATGAATTTCTATGCTAATAATATGTACCTGAACCTTGTGAGATTGGT
AGCAATATAAAGAATCTCATGGAAGATTTTCAGAAGAAGAAACAAAAGAACAGCAAAACTAGAATCA
ATAGCAGACATGAAGGCGTTTGTGAGAATTATCCACAGTTCAAGAAAATGTCTGGGACTGTTTCAAAG
CATGTGACAGTGGTTGGAGAAGTGTCTCGATTGGTCAGTGAACCGGAATCTGCTGGAGGTTTCAGAGGTT
GAGCAAGAAGTGGCCTGTCAAAATGACCATTCTAGTGCTCTCCAGAATATAAAAAGGCTTCTGCAGAAC
CCCAAAGTGACAGAGTTTGTGCTGCCCCGCTGGTGATGCTTTATGCTTTACATTATGAGCGACACAGC
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GTGTCTGCAGTTGTTGAATATGGTGGTAAACGAGTCAGAGGAAGTGACCTTTCCAGCCCAAAGATGCT
GTGGCTATCACCAACAATTCTCAAAGGACTGAAGGGAGTAGAAAATGTATACACAGCATCAACCT
TTCTACATGAAACCCTGGATCATCTCATCAAAGGAAGGCTTAAGGAAAACCTATATCCTTATTTAGGC
CCCAGCACACTCAGAGACAGACCTCAGGATATCATTGTGTTTGAATTGGAGGAGCCACCTATGAAGAG
GCTCTAACAGTTTATAACCTGAACCGCACCCTCCTGGAGTGAGGATTGCTCTGGAGGCCACACAGTG
CACAACACGAAAAGTTTCTAGAGGAAGTTCTGGCTTCTGGACTGCACAGCCGAAGCAAGGAGAGCTCT
CAAGTCACATCAAGGTCAGCGAGCAGAAGA
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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**Protein Sequence:** >Peptide sequence encoded by RG238285  
 Blue=ORF Red=Cloning site Green=Tag(s)

MNVVFAVKQYPHLFSLNILGCCQGRNWDPAQLSRTTQGLTALLSLKKCPMIRYQLSSEAAKRLAECVK  
 QVITKEYELFEFRRTEVPPLLLILDRCDDAITPLLNQWTYQAMVHELLGINNNRIDLSRVPGISKDLRE  
 VVLSAENDEFYANMYLNF AEIGSNIKNLMEDFQKKPKKEQQKLESIADMKAFVENYPQFKKMSGTVSK  
 HVTVVGEL SRLVSE RNLLLEVSEVEQELACQNDHSSALQNIKRL LQNPKVTEFDAARLVMLYALHYERHS  
 SNSLPGLMMDLRNKGVSEKYRKLVS AVVEYGGKRVRGSDLFSPKDAVAITKQFLKGLKGVENVY TQHQP  
 FLHETLDHLIKGRLENL YPYLGPSTLRDRPQDIIVFVIGGATYEEALTVYNLNRTPGVRIVLGGTTV  
 HNTKSFLEEVLASGLHSRSKESQVTSRSASRR  
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV  
 MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED  
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001279355

**ORF Size:** 1341 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).

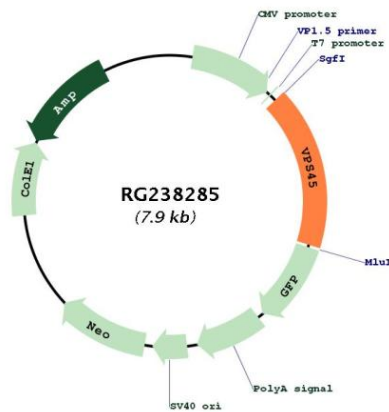
**RefSeq:** [NM\\_001279355.1](#), [NP\\_001266284.1](#)

RefSeq Size: 2080 bp  
 RefSeq ORF: 1344 bp

Locus ID: 11311  
 Cytogenetics: 1q21.2  
 Protein Pathways: Endocytosis  
 MW: 51.2 kDa

**Gene Summary:** Vesicle mediated protein sorting plays an important role in segregation of intracellular molecules into distinct organelles. Genetic studies in yeast have identified more than 40 vacuolar protein sorting (VPS) genes involved in vesicle transport to vacuoles. This gene is a member of the Sec1 domain family, and shows a high degree of sequence similarity to mouse, rat and yeast Vps45. The exact function of this gene is not known, but its high expression in peripheral blood mononuclear cells suggests a role in trafficking proteins, including inflammatory mediators. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jul 2013]

**Product images:**



Circular map for RG238285