

## Product datasheet for **RC206027**

### VPS45A (VPS45) (NM\_007259) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	VPS45A (VPS45) (NM_007259) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	VPS45A
Synonyms:	H1; H1VPS45; SCN5; VPS45A; VPS45B; VPS54A; VSP45; VSP45A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC206027 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAACGTGGTTTTTCTGTGAAGCAGTACATTTCCAAAATGATAGAGGACAGCGGCCCTGGTATGAAAG  
 TACTTCTCATGGATAAAGAGACGACTGGCATAGTGAGTATGGTATACACACAATCGGAGATTCTACAGAA  
 GGAAGTGACCTCTTTGAACGCATTGATTCTCAAATCGAGAGATCATGAAACACCTGAAGGCAATTTGT  
 TTTCTTCGACCTACAAAGGAGAATGTGGATTATATTATTCAGGAGCTCCGAAAGACCCAAATACACTATAT  
 ATTTCAATTTTTCAGTAATGTGATCAGCAAGAGTGACGTGAAGTCATTGGCTGAAGCTGATGAACAGGA  
 AGTTGTGGCTGAGGTTCCAGGAATTTTATGGTATTACATTGCTGTGAACCCACATTTGTTTTCCCTCAAT  
 ATTTTGGGTTGCTGCCAGGTCGAAATGGGATCCAGCCAGCTATCTAGAACAACCTCAAGGGCTTACAG  
 CTCTCTTTTATCTCTGAAGAAGTGTCCATGATTCGTTATCAGCTCTCATCAGAGGCAGCAAAGAGACT  
 TGCAGAGTGCCTAAGCAAGTGATAACTAAAGAATATGAACTGTTTGAATCCGTCGGACAGAGGTTCTCT  
 CCATTGCTCCTTATTTTATAGATCGCTGTGATGATGCCATCACCCCATTTGCTAAACCAAGTGGACATATCAGG  
 CCATGGTCCACGAACTACTAGGCATAAACAACAATCGGATTGATCTTTCCAGAGTGCCGGGAATCAGTAA  
 AGACTTAAGAGAAGTGGTCTATCTGCTGAAAATGATGAATTTCTATGCTAATAATATGTACCTGAACTTT  
 GCTGAGATTGGTAGCAATATAAAGAATCTCATGGAAGATTTTCAGAAGAAGAAACCAAAGAACAGCAAA  
 AACTAGAATCAATAGCAGACATGAAGGCGTTTGTGAGAATTATCCACAGTTCAAGAAAATGTCTGGGAC  
 TGTTTCAAAGCATGTGACAGTGGTTGGAGAAGTGTCTCGATTGGTCAGTGAACGGAATCTGCTGGAGGTT  
 TCAGAGGTTGAGCAAGAAGTGGCTGTCAAATGACCATTCTAGTGTCTCCAGAATATAAAAAGGCTTC  
 TGCAGAACCCCAAAGTGACAGAGTTTGTGCTGCCCGCTGGTGTGCTTTATGCTTTACATTATGAGCG  
 ACACAGCAGCAATAGCCTGCCAGGACTAATGATGGACCTCAGGAATAAAGGTGTTTCTGAGAAGTATCGA  
 AAGCTCGTGTCTGCAGTTGTTGAATATGGTGGTAAACGAGTCAGAGGAAGTACCTCTTACGCCCAAAG  
 ATGCTGTGGCTATCACCAACAATTCTCAAAGGACTGAAGGGAGTAGAAAATGTATATACACAGCATCA  
 ACCTTTCTACATGAAACCCTGGATCATCTCATCAAAGGAAGGCTTAAGGAAAACCTATATCCTTATTTA  
 GGCCCCAGCACACTCAGAGACAGACCTCAGGATATCATTGTGTTTGAATTGGAGGAGCCACCTATGAAG  
 AGGCTCTAACAGTTTATAACCTGAACCGCACCCTCTGGAGTGAGGATTGCTCTGGGAGGCCACACAGT  
 GCACAACAGAAAAGTTTCTAGAGGAAGTTCTGGCTTCTGGACTGCACAGCCGAAGCAAGGAGAGCTCT  
 CAAGTCACATCAAGGTCAGCGAGCAGAAGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC206027 protein sequence  
 Red=Cloning site Green=Tags(s)

MNVVFAVKQYISKMIEDSGPGMKVLLMDKETTGI VSMVYTQSEILQKEVYLFERIDSQNREIMKHLKAIC  
 FLRPTKENVDYIIQELRRPKYTIYFIYFSNVISKSDVKS LAEADEQEVVAEVQEFYGDYIAVNPFLSLN  
 ILGCCQGRNWDPAQLSRTTQGLTALLSLKKCPMIRYQLSSEAARKLAECVKQVITKEYELFEFRRETEVP  
 PLLLILDRCDDAITPLLNQWYQAMVHELLGINNNRIDLSRVPGISKDLREVVLSAENDEFYANNMYLNF  
 AEIGSNIKNLMEDFQKKPKKEQQKLES IADMKAFVENYPQFKMMSGTVSKHVTVVGELSRLVSERNLLEV  
 SEVEQELACQNDHSSALQNIKRLLQNPKVTEFDAARLVMLYALHYERHSSNSLPLMMDLRNKGVSEKYR  
 KLVSAVVEYGGKRVRGSDLFSPKDAVAITKQFLKGLKGVENVYTHQHPFLHETLDHLIKGRLENLYPYL  
 GPSTLRDRPQDIIIVFVIGGATYEEALTVYNLNRTPGVRIVLGGTTVHNTKSFLEEVLASGLHSRSKES  
 QVTSRSASRR

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6317\\_d09.zip](https://cdn.origene.com/chromatograms/mk6317_d09.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_007259

**ORF Size:** 1710 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\\_007259.5](#)

**RefSeq Size:** 2824 bp

**RefSeq ORF:** 1713 bp

**Locus ID:** 11311

UniProt ID: [Q9NRW7](#)

Cytogenetics: 1q21.2

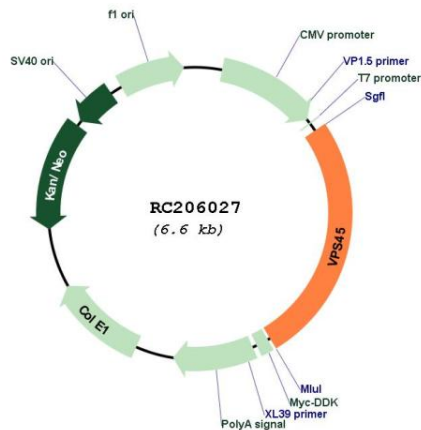
Domains: Sec1

Protein Pathways: Endocytosis

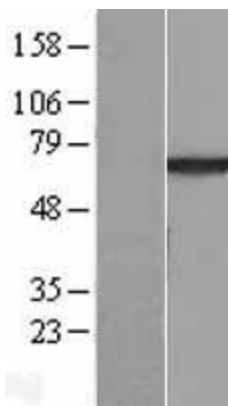
MW: 65.1 kDa

**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]

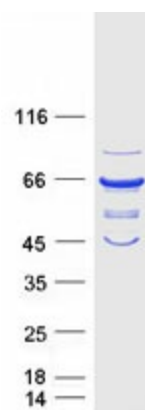
### Product images:



Circular map for RC206027



Western blot validation of overexpression lysate (Cat# [LY416097]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206027 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified VPS45 protein (Cat# [TP306027]). The protein was produced from HEK293T cells transfected with VPS45 cDNA clone (Cat# RC206027) using MegaTran 2.0 (Cat# [TT210002]).