

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)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAACGTGGTTTTTCTGTGAAGCAGTACATTTCCAAAATGATAGAGGACAGCGGGCTGGTATGAAAG
 TACTTCTCATGGATAAAGAGACGACTGGCATAGTGAGTATGGTATACACACAATCGGAGATTCTACAGAA
 GGAAGGTACCTCTTTGAACGCATTGATTCTCAAATCGAGAGATCATGAAACACCTGAAGGCAATTTGT
 TTTCTTCGACCTACAAAGGAGAATGTGGATTATATTATTCAGGAGCTCCGAAAGACCCAAATACACTATAT
 ATTTCAATTTATTTAGTAAATGTGATCAGCAAGAGTGACGTGAAGTATTGGCTGAAGCTGATGAACAGGA
 AGTTGTGGCTGAGGTTACAGGAATTTATGGTATTACATTGCTGTGAACCCACATTTGTTTTCCCTCAAT
 ATTTTGGGTTGCTGCCAGGTCGAAATGGGATCCAGCCAGCTATCTAGAACAACCTCAAGGGCTTACAG
 CTCTCCTTTTATCTCTGAAGAAGTGTCCATGATTCGTTATCAGCTCTCATCAGAGGCAGCAAAGAGACT
 TGCAGAGTGCCTAAGCAAGTGATAACTAAAGAATATGAACTGTTTGAATCCGTCGGACAGAGGTTCTCT
 CCATTGCTCCTTATTTAGATCGCTGTGATGATGCCATCACCCCATTTGCTAAACCAAGTGGACATATCAGG
 CCATGGTCCACGAACTACTAGGCATAAACAACAATCGGATTGATCTTTCCAGAGTGCCGGGAATCAGTAA
 AGACTTAAGAGAAGTGGTCTATCTGCTGAAAATGATGAATTTCTATGCTAATAATATGTACCTGAACTTT
 GCTGAGATTGGTAGCAATATAAAGAATCTCATGGAAGATTTTCAGAAGAAGAAACCAAAGAAGCAGCAAA
 AACTAGAATCAATAGCAGACATGAAGGCGTTTGTGAGAATTATCCACAGTTCAAGAAAATGTCTGGGAC
 TGTTTCAAAGCATGTGACAGTGGTTGGAGAAGTGTCTCGATTGGTCAGTGAACGGAATCTGCTGGAGGTT
 TCAGAGGTTGAGCAAGAAGTGGCTGTCAAATGACCATTCTAGTGTCTCCAGAATATAAAAAGGCTTC
 TCAGAACCCCAAAGTGACAGAGTTTGTGCTGCCCGCTGGTGTGCTTTATGCTTTACATTATGAGCG
 ACACAGCAGCAATAGCCTGCCAGGACTAATGATGGACCTCAGGAATAAAGGTGTTTTCTGAGAAGTATCGA
 AAGCTCGTGTCTGCAGTTGTTGAATATGGTGGTAAACGAGTCAGAGGAAGTACCTCTTACGCCCAAAG
 ATGCTGTGGCTATCACCAACAATTCTCAAAGGACTGAAGGGAGTAGAAAATGTATATACACAGCATCA
 ACCTTTCTACATGAAACCCTGGATCATCTCATCAAAGGAAGGCTTAAGGAAAACCTATATCCTTATTTA
 GGCCCCAGCACACTCAGAGACAGACCTCAGGATATCATTGTGTTTGAATGGAGGAGCCACCTATGAAG
 AGGCTCTAACAGTTTATAACCTGAACCGCACCCTCTGGAGTGAAGGATTGCTCTGGGAGGCCACACAGT
 GCACAACAGAAAAGTTTCTAGAGGAAGTTCTGGCTTCTGGACTGCACAGCCGAAGCAAGGAGAGCTCT
 CAAGTCACATCAAGGTCAGCGAGCAGAAGA

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

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

MNVVFAVKQYISKMIEDSGPGMKVLLMDKETTGI VSMVYTQSEILQKEVYLFERIDSQNREIMKHLKAIC
 FLRPTKENVDYIIQELRRPKYTIYFIYFSNVISKSDVKSLAEADEQEVVAEVQEFYGDYIAVNPFLSLN
 ILGCCQGRNWDPAQLSRTTQGLTALLSLKKCPMIRYQLSSEAARKLAECVKQVITKEYELFEFRRETEVP
 PLLLILDRCDDAITPLLNQWYQAMVHELLGINNNRIDLSRVPGISKDLREVVLSAENDEFYANNMYLNF
 AEIGSNIKNLMEDFQKKPKKEQQKLESIA DMKAFVENYPQFKMMSGTVSKHVTVVGELSRLVSERNLLEV
 SEVEQELACQNDHSSALQNIKRLLQNPKVTEFDAARLVMLYALHYERHSSNSLPLMMDLRNKGVSEKYR
 KLVSAVVEYGGKRVRGSDLFSPKDAVAITKQFLKGLKGVENVYTOHPFLHETLDHLIKGRLKENLYPYL
 GPSTLRDRPQDIIIVFVIGGATYEEALTVYNLNRTPGVRIVLGGTTVHNTKSFLEEVLASGLHSRSKES
 QVTSRSASRR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

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.

RefSeq: [NM_007259.5](#)

RefSeq Size: 2824 bp

RefSeq ORF: 1713 bp

Locus ID: 11311

UniProt ID: [Q9NRW7](#)

Cytogenetics: 1q21.2

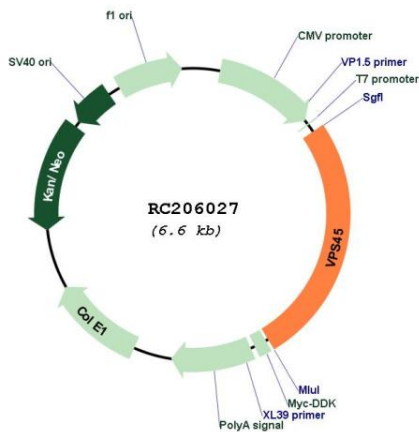
Domains: Sec1

Protein Pathways: Endocytosis

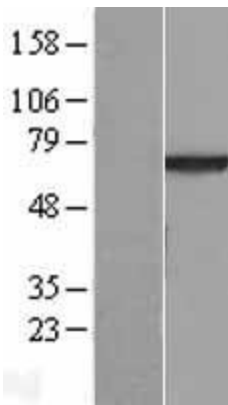
MW: 65.1 kDa

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]

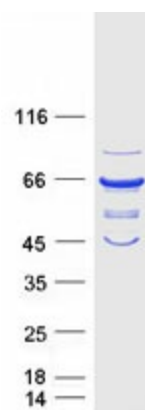
Product images:



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]).