

Product datasheet for **RR202230**

Vps26a (NM_001007740) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Vps26a (NM_001007740) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Vps26a
Synonyms:	Vps26
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR202230 representing NM_001007740 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGTTTCTTGGAGGCTTTTTGGTCCCATCTGTGAGATCGATGTTGCCCTTAGTGATGGGGAGACCA
GGAAAATGGCAGAAATGAAAACGGAAGATGGCAAAGTAGAAAAACTATCTCTTCTATGATGGGAATC
TGTCTCAGGAAAGGTAAACCTAGCCTTTAAGCAGCCTGGAAAGAGGCTAGAGCATCAAGGAATTAGAATT
GAATTTGTAGGTCAAATTGAGCTTTTCAATGACAAGAGTAATACTCATGAATTTGAAAACCTAGTGAAGG
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ATATGAGTCATACATCGGTGCCAATGTCCGCCTGAGGTATTCCTTAAGGTGACCATTGTGAGAAGACTG
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TAAAAATGGAGGTGGGAATTGAAGACTGTCTGCACATAGAGTTTGTGAGTACAATAAGTCCAAGTATCATT
AAAGGATGTAATTGTTGGAAAAATTTACTTCTTATTAGTAAGAATAAAAAACAACACATGGAGTTACAG
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AAATAATGGATGGGGCGCCAGTAAAAGGAGAATCTATCCGATAAGATTGTTCTTAGCAGGGTATGACCC
AACCCCAACAATGAGAGATGTGAACAAGAATTTTCAGTAAGGTACTTTTTGAACCTCGTCTTGTGAT
GAGGAGGACAGAAGGTACTTCAAGCAGCAGGAGATTATCCTGTGGAGAAAAGCACCTGAGAACTGAGAA
AACAGAGGACGAACCTTACCAGCGATTTGAATCTCCAGAATCGCAGGCGTCTGCAGAACAGCCTGAGAT
G

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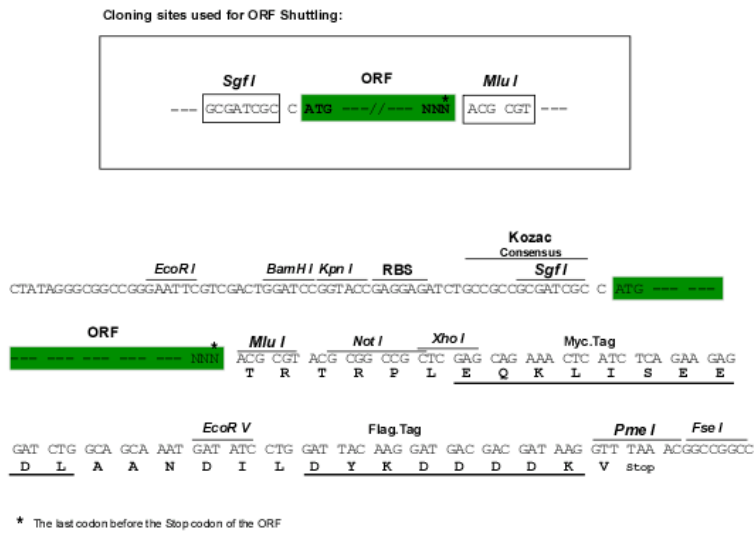
Protein Sequence: >RR202230 representing NM_001007740
 Red=Cloning site Green=Tags(s)

MSFLGGFFGPICEIDVALSDGETRKAEMKTEDGKVEKHLYFYDGESVSGKVNLAFAKQPGKRLHEHQGIRI
 EFVQGIELFNDKSNTHFVNLVKELALPGELTQSRSYDFEFMQVEKPYESYIGANVRLRYFLKVTIVRRL
 TDLVKEYDLIVHQLATYPEVNNISIKMEVGIEDCLHIEFEYNKSKYHLKDVIVGKIYFLLVRIKIQHMELQ
 LIKKEITGIGPSTTTTETIAYEIMDGAPVKGESIPIRLFLAGYDPTPTMRDVKKFSVRYFLNLLVLD
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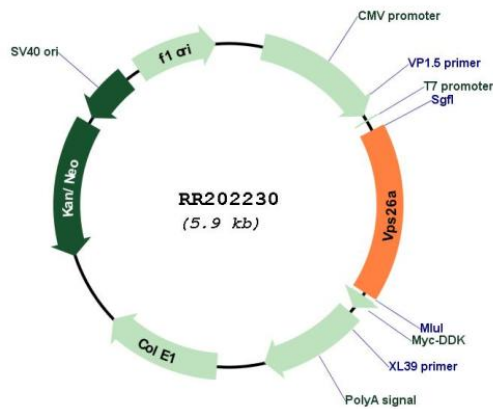
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001007740

ORF Size: 981 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:	<ol style="list-style-type: none">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_001007740.1 , NP_001007741.1
RefSeq Size:	1292 bp
RefSeq ORF:	984 bp
Locus ID:	361846
UniProt ID:	Q6AY86
Cytogenetics:	20q11
MW:	38.1 kDa

Gene Summary:

Acts as component of the retromer cargo-selective complex (CSC). The CSC is believed to be the core functional component of retromer or respective retromer complex variants acting to prevent missorting of selected transmembrane cargo proteins into the lysosomal degradation pathway. The recruitment of the CSC to the endosomal membrane involves RAB7A and SNX3. The SNX-BAR retromer mediates retrograde transport of cargo proteins from endosomes to the trans-Golgi network (TGN) and is involved in endosome-to-plasma membrane transport for cargo protein recycling. The SNX3-retromer mediates the retrograde endosome-to-TGN transport of WLS distinct from the SNX-BAR retromer pathway. The SNX27-retromer is believed to be involved in endosome-to-plasma membrane trafficking and recycling of a broad spectrum of cargo proteins. The CSC complex seems to act as recruitment hub for other proteins, such as the WASH complex and TBC1D5. Required for retrograde transport of lysosomal enzyme receptor IGF2R. Required to regulate transcytosis of the polymeric immunoglobulin receptor (pIgR-pIgA). Required for the endosomal localization of WASHC2 (indicative for the WASH complex). Required for the endosomal localization of TBC1D5. Mediates retromer cargo recognition of SORL1 and is involved in trafficking of SORL1 implicated in sorting and processing of APP. Involved in retromer-independent lysosomal sorting of F2R. Involved in recycling of ADRB2. Acts redundantly with VSP26B in SNX-27 mediated endocytic recycling of SLC2A1/GLUT1. Enhances the affinity of SNX27 for PDZ-binding motifs in cargo proteins (By similarity). [UniProtKB/Swiss-Prot Function]