

## **Product datasheet for RN202230**

## Vps26a (NM\_001007740) Rat Untagged Clone

## **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** Vps26a (NM\_001007740) Rat Untagged Clone

Tag:Tag FreeSymbol:Vps26aSynonyms:Vps26

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Cell Selection: Neomycin

Fully Sequenced ORF: >RN202230 representing NM\_001007740

Red=Cloning site Blue=ORF Orange=Stop codon

GCCGCGATCGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul

**ACCN:** NM 001007740



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**Insert Size:** 984 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

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: <u>NM 001007740.1</u>, <u>NP 001007741.1</u>

RefSeq Size: 1292 bp
RefSeq ORF: 984 bp
Locus ID: 361846
UniProt ID: Q6AY86
Cytogenetics: 20q11



## **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 SNX27retromer 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 (plgR-plgA). 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 retromerindependent 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]