

Product datasheet for **RN214029**

Vps29 (NM_001105932) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Vps29 (NM_001105932) Rat Untagged Clone
Tag: Tag Free
Symbol: Vps29
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN214029 representing NM_001105932
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGTTGGTGTGGTATTAGGAGATCTGCACATTCCACACCGGTGCAACAGCCTGCCGGCCAAATTTAAAA
AACTCCTGGTGCCAGGAAAAATCCAGCACATTCTCTGCACTGGAAACCTTGCACCAAGGAGAGCTATGA
CTATCTCAAGACTCTGGCTGGTGTGTCACATCGTAAGAGGAGACTTCGATGAGAGTCTGAATTACCCA
GAACAGAAGGTTGTGACTGTGGGCAGTTCAAGATCGGTCTGATCCATGGCCACCAAGTTATTCCGTGGG
GAGACATGGCTAGCTTAGCCCTGCTGCAGAGGCAGTTTGTGATGTGGACATTCTTATCTCAGGACACACACA
CAAATTCGAAGCATTTGAGCATGAAAAATAATTCTATATTAACCCAGTTCTGCCACTGGAGCCTATAAT
GCCTTGGAACAAATATTATCCGTCATTTGTGCTGATGGACATCCAGGCTTCTACCGTGGTCACTTACG
TCTATCAGCTAATTGGAGATGACGTAAGTAGAACGAATTGAGTATAAAAAAGTCATAA

ACGGTACGGCGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001105932
Insert Size: 549 bp



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OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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_001105932.1](#), [NP_001099402.1](#)

RefSeq Size: 1159 bp

RefSeq ORF: 549 bp

Locus ID: 288666

UniProt ID: [B2RZ78](#)

Cytogenetics: 12q16

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 seems to act as recruitment hub for other proteins, such as the WASH complex and TBC1D5. Required to regulate transcytosis of the polymeric immunoglobulin receptor (pIgR-pIgA). Acts also as component of the retriever complex. The retriever complex is a heterotrimeric complex related to retromer cargo-selective complex (CSC) and essential for retromer-independent retrieval and recycling of numerous cargos such as integrin alpha-5/beta-1 (ITGA5:ITGB1). In the endosomes, retriever complex drives the retrieval and recycling of NxxY-motif-containing cargo proteins by coupling to SNX17, a cargo essential for the homeostatic maintenance of numerous cell surface proteins associated with processes that include cell migration, cell adhesion, nutrient supply and cell signaling. The recruitment of the retriever complex to the endosomal membrane involves CCC and WASH complexes. Involved in GLUT1 endosome-to-plasma membrane trafficking; the function is dependent of association with ANKRD27. [UniProtKB/Swiss-Prot Function]