

Product datasheet for **MR210707**

Vps35 (NM_022997) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Vps35 (NM_022997) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Vps35
Synonyms:	A1647796; Mem3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR210707 representing NM_022997
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCTACAACACAGCAGTCACCCAGGATGAGCAGGAAAACTTTGGATGAAGCCATCCAGGCTGTGA
 AGGTTTCAGTCATTCCAGATGAAAAGATGCCTGGACAAAAACAAGCTGATGGATGCCTCGAAGCATGCCTC
 CAATATGCTTGGAGAGCTCCGGACCTCTATGCTGTCAACAAAGAGTTACTATGAACCTTTATATGGCTATT
 TCTGATGAACTGCACTACTTGGAGGTCTACCTGACTGATGAATTTGCTAAAGGAAGAAAGGTGGCAGATC
 TCTATGAACCTGTACAGTACGCGGGAAACATTATTCCAAGGCTTTATCTCTTGATCACAGTTGGAGTTGT
 ATATGTCAAGTCATTTCCCTCAATCCAGGAAAGATATTTTGAAAGATTTGGTAGAAATGTGCCGTGGTGTG
 CAGCATCCGCTAAGGGTTTGTCTTCGAAATACCTTCTTCAGTGTACTAGGAACATTTTACCTGATG
 AAGGAGAGCCAACAGATGAAGAAACAACCTGGTATATCAGTGATCCATGGATTTTGTACTACTCAACTT
 TGCAGAAATGAATAAGCTCTGGGTGCGGATGCAGCATCAAGGACATAGTCGAGATAGAGAAAAAGAGAA
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 ATTTTCAACAGGTGGCTACAGTCATACAGTCCAGACAAGACATGCCATCAGAGGATGTTGTATCTTTA
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 GTTGGCCGATTTATCATCTGCTACGTTCTGATGATCCTGACCAGCAGTATTTGATTTTGAATACGGCAC
 GAAAACATTTGGGGCTGGTGGAAATCAGCGGATTCGCTTCACTGCCACCTTTGGTATTTGCAGCTTA
 CCAGTTGGCTTTTCGATACAAAGAGAATCCCAAATGGATGACAAGTGGGAAAAGAAATGCCAGAAGATA
 TTTTCATTTGCTCACCAGACTATCAGTCTTTGATTAAGCTGAGCTGGCTGAATTACCACTGAGACTTT
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 TCATCCTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR210707 representing NM_022997
Red=Cloning site Green=Tags(s)

MPTTQQSPQDEQEKLLEDAIQAVKVQSFQMKRCLDKNKLMDALKHASNMLGELRTSMLSPKSYEELYMAI
SDEHLHYLEVYL TDEFAKGRKVADLYELVQYAGNIIPRLYLLITVGVVYVKSFQSRKDILKDLVEMCRGV
QHPLRGLFLRNYLLQCTRNILPDEGEPTDEETTGDISDSMDFVLLNFAEMNKLWVRMQHQGHSRDREKRE
RERQELRILVGTNLVRLSQLEGVNVRYKQIVLTGILEQVVNCRDALAQEYLMECIIQVFPDEFHLQTLN
PFLRACAEHQNVVKNIIIALIDRLALFAHREDGPGIPAEIKLFDIFSQQVATVIQSRQDMPSEDVVSL
QVSLINLAMKCYPDRVDYVDKVLLETTVEIFNKLNLEHIATSSAVSKELTRLLKIPVDTYNNILTVLKLKH
FHPLFEYFDYESRKSMSCYVLSNVLDYNTEIVSQDQVDSIMNLVSTLIQDQDPQVEDPDPEDFADEQSL
VGRFIHLLRSDDPDQQLILNTARKHFGAGGNQRI RFTLPPLVFAAYQLAFRYKENSQMDDKWEKCKQKI
FSFAHQTISALIKAELAEPLRLFLQGALAAGEIGFENHETVAYEFMSQAFSLYEDEISDSKAQLAAITL
IIGTFERMKCFSEENHEPLRTQCALAASKLLKKPDQGRAVSTCAHLFWSGRNTDKNGEELHGGKRVMECL
KKALKIANQCMDPSLQVQLFIEILNRYIYFYEKENDA VTIQVLNQLIQKIREDLPNLESSEETE QINKHF
HNTLEHLRSRRESPESEGP IYEGLIL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9035_b05.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:


ACCN: NM_022997

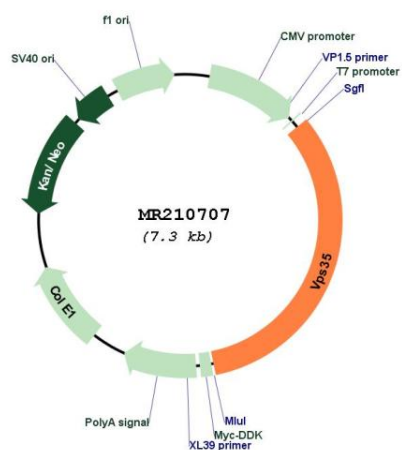
ORF Size: 2388 bp

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](#)

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_022997.5
RefSeq Size:	3169 bp
RefSeq ORF:	2391 bp
Locus ID:	65114
UniProt ID:	Q9EQH3
Cytogenetics:	8 41.61 cM
MW:	92.2 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 CSC seems to associate with the cytoplasmic domain of cargo proteins predominantly via VPS35; however, these interactions seem to be of low affinity and retromer SNX proteins may also contribute to cargo selectivity thus questioning the classical function of the CSC. 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 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 (Probable). Required for retrograde transport of lysosomal enzyme receptor IGF2R and SLC11A2. Required to regulate transcytosis of the polymeric immunoglobulin receptor (pIgR-pIgA). Required for endosomal localization of WASHC2 and mediates the association of the CSC with the WASH complex (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR210707