

Product datasheet for **MG210707**

Vps35 (BC005469) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Vps35 (BC005469) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Vps35
Synonyms:	A1647796; Mem3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>MG210707 representing BC005469
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCTACAACACAGCAGTCACCCAGGATGAGCAGGAAAACTTTGGATGAAGCCATCCAGGCTGTGA
 AGGTTTCAGTCATTCCAGATGAAAAGATGCCTGGACAAAAACAAGCTGATGGATGCCTGAAGCATGCCTC
 CAATATGCTTGGAGAGCTCCGGACCTCTATGCTGTCAACAAAGAGTTACTATGAACCTTTATATGGCTATT
 TCTGATGAACTGCACTACTTGGAGGTCTACCTGACTGATGAATTTGCTAAAGGAAGAAAGGTGGCAGATC
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 CACAACACATTTGGAGCACTTGCCTCAAGACGGGAATCACCAGAGTCTGAGGGCCCAATCTATGAAGTCT
 TCATCCTT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG210707 representing BC005469
 Red=Cloning site Green=Tags(s)

MPTTQQSPQDEQEKLLEDAIQAVKVQSFQMKRCLDKNKLMALKHASNMLGELRTSMLSPKSYEELYMAI
 SDEHLHYLEVYL TDEFAKGRKVADLYELVQYAGNIIPRLYLLITVGVVYVKSFQSRKDILKDLVEMCRGV
 QHPLRGLFLRNYLLQCTRNILPDEGEPTDEETTGDISDSMDFVLLNFAEMNKLWVRMQHQGHSRDREKRE
 RERQELRILVGTNLVRLSQLEGVNVRYKQIVLTGILEQVVNCRDALAQEYLMECIIQVFPDEFHLQTLN
 PFLRACAEHLQNVNKNIIIALIDRLALFAHREDGPGIPAEIKLFDIFSQQVATVIQSRQMPSEDEVVSL
 QVSLINLAMKCYPDRVDYVDKVLLETTVEIFNKLNLEHIATSSAVSKELTRLLKIPVDTYNNILTVLKLKH
 FHPLFEYFDYESRKSMSCYVLSNVLDYNTEIVSQDQVDSIMNLVSTLIQDQDPQVEDPDPEDFADEQSL
 VGRFIHLLRSDDPDQYILNNTARKHFGAGGNQRIRFTLPPLVFAAYQLAFRYKENSQMDDKWEKCKQKI
 FSFAHQTISALIKAELAEPLRLFLQGALAAGEIGFENHETVAYEFMSQAFSLYEDEISDSKAQLAAITL
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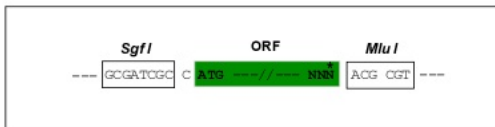
TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shuttling:



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            Kozac
            Consensus
            SgfI      AscI
EcoRI      BamHI KpnI  RBS
CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

HindIII   NheI  RsrII  MluI      NotI      XhoI      GFP Tag
CAAGCTTAAGTACTAGCTAGCGGACCG  ACG CGT  ACG CGG  CCG CTC GAG  ATG GAG AGC GAC --- ---
                                     T  R  T  R  P  L  E      M  E  S  D  -  -  -

            PmeI      FseI
            --- GAA GAA AGA GTT TAA ACGGCCGGCCGGAGCT
            - - - E  E  R  V  Stop
  
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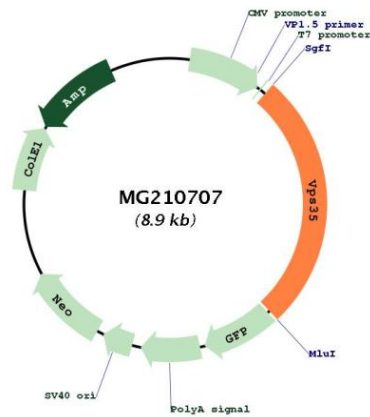
ACCN: BC005469

ORF Size: 2390 bp

OTI Disclaimer:	<p>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.</p> <p>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</p>
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:	BC005469 , AAH05469
RefSeq Size:	3295 bp
RefSeq ORF:	2390 bp
Locus ID:	65114
Cytogenetics:	8 41.61 cM

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 MG210707