

Product datasheet for **MR216602**

Vps51 (NM_001081041) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Vps51 (NM_001081041) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Vps51
Synonyms:	1110014N23Rik; 3110057M17Rik; AI837850; Ffr
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR216602 representing NM_001081041
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGCTGCGGCAGCTGTGGGCGCTGGCCTAGGGTCCGGGCTGGAGACTCCCCAGAAGTCCCAGG
 CGGACGCTCCGGAGCGTCGGCGGAAGGCTCACGGGATGCTGAAGCTTTACTACGGCCTCTCGGAGGGGA
 GGTGGCGGGGCATCCCGCAGGGCCTGACCTCTGGACCCAACCGATCTCAATGGGGCGCACTTCGACCCG
 GAAGTTTATCTTGACAAGCTGCGTAGAGAATGTCTCTGGCCAGCTGATGGACAGTGAGACGGACATGG
 TACGGCAGATCCGGGCTCTAGACAGCGACATGCAGACCTGGTCTATGAGAACTACAACAAGTTCATCTC
 AGCTACAGACACCATTGAAAGATGAAGAATGACTTCCGGAAGATGGAAGATGAGATGGACCGGCTGGCC
 ACCAACATGGCAGTGATACCAACTTCAGCGCACGGATCAGCGCCACGCTACAGGACCGACAGGCGCA
 TCACCAAGCTAGCAGGGGTACATGCACTACTGCGGAAGCTGCAGTTCCTTTTTGAGCTGCCTTCGCGCT
 CACCAAGTGTGTGGAGCTGGGTGCCTATGGGCAGGCAGTGCCTATCAGGGTCGTGCCAGGGCCGTGCTG
 CAGCAGTACCAGCACCTGCCCTCCTCCGTGCCATACAGGATGACTGCCAGGTATCACAGCTCGCTTGG
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 GCTGCTGGCCCTGGGCGAGCCAGCTGAGGAGCTGTGCGAGGAGTTCCTGGCGCATGCGCGGGGACGGCTG
 GAGGAAGAACTGAGCAGCCTGGAGGCCAACTGGGGCCCTCCCCTCCAGCACCTGATGTGTTAGAGTTCA
 CCGACCGTGGTGGCAATGGTTTTGTAGGTGGCCTCTGCCAGGTGGCAGCAGCCTACCAAGAGCTGTTTGC
 TGCTCAGGGCCCTGCTGGTGGGAGAAGCTGGCAGCCTTTGCGCAGGAGCTGGGCGGCCCTACTTTGCA
 CTGGTTGAGCGGGCCTGGCAGCACCTGGGGCCCTGCTGGCCGCTGCTGGGCTTTTCAGAGCTACCCACAGA
 GATTGTGGAGCGAGTGGCCCGGAGCGCCTGAGCCACCATCTGCAGGGTCTGAAGGCTGCCTTCTGAGC
 TCCTGACGGATGTTGCGCAGGCCCTGGCAGCACCTCGCCTAGCGGGGAAGGAGGGCCCCAGCCTGGCTG
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 TACCGCAAGGAGGTGTCCTTCTCCAATAAGCCCTACTTCAGGGGCGAGTTCGACAGCCAGGGAGTTCGT
 GAGGGCCTCATCGTGGTTTTATCCGCTCCATGTGCCAGACAGCCAGAGCTTCTGTGACAGCCCTGGAG
 AAAAGGGAGGTGCCACGCCGCTGCCCTGCTCCTGCTGCTCTCTCGCCTGCTGCTGGATTATGAGACAGC
 CACCATCTCTACATCCTCACACTACTGATGAACAGTTTCTGGTGCAGGACCAGTCTCCCGTTACACCC
 GTGAGCACACTGTGTGCAGAGGCCAGAGAGACAGCACGGCGGCTGCTGACTCACTATGTGAAGGTGCAAG
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 GAACGTGCGTGTGTCATGAAGCGTGTGGTGGAGGACACTACAGCTATTGATGTCCAGGTGGGGCTCCTG
 TATGAAGAGGGTGTCCGGAAGGCCAGAGCAGTACTCAAGCAAAAGGACTTTCTCTGTGTACAGCAGCT
 CCCGGCAGCAGGGCCGCTATGCACCCAGCTACACACCCAGTGTCCCATGGACACAAACCTCCTGAGCAA
 TATTCAGAAGCTGTTCTCTGAACGGATCGATGTGTTAGCCCCGTGGAATTAACAAGGTGTGCGGTGCTG
 ACTGGCATCATTAAGATCAGCTTGAAGACACTACTGGAGTGTGTGCGCCTACGCACCTTTGGGCGCTTTG
 GGCTGCAGCAGGTGCAGGTGACTGCCACTTCTGCAGCTTTACTTGTGGCGCTTTGTGGCTGATGAGGA
 GCTAGTGCACCTGCTGCTGGACGAAGTAGTGCCTCAGCTGCTCTGCGCTGTCCCGACCCAGTGCCCATG
 GAACCTAGTGTGTCGAGGTATCTGCGAGCGCGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR216602 representing NM_001081041
Red=Cloning site Green=Tags(s)

MAAAAAVGPGLGSGPGDSPEGPEADAPERRRKAHGMLKLYYGLSEGEVAGHPAGPDPLDPTDLNGAHFDP
EVYLDKLRRECPLAQLMDESETDMVRQIRALDSDMQTLVYENYNKFI SATDTIRKMKNDFRKMEDEMDRLA
TNMAVITNFSARISATLQDRHERITKLAGVHALLRKLQFLFELPSRLTKCVELGAYGQAVRYQGRARAVL
QQYQHLPSFRAIQDDCQVITARLAQQLRQRFREGCSGAPEQAECVELLLALGEPAEELCEEFLAHARGRL
EEELSSLEAELGPSPAPDVLEFTRGGNGFVGGLCQVAAAYQELFAAQGPAGAEKLAFAQELGGRYFA
LVERRLAQEQQGSDNSLLVRLDRFHRRLRAPGALLAAAGLSESATEIVERVARERLSHHLQGLKAAFLS
SLTDVRQALAAPRLAGKEGPSLAELLANVASSILSHIKTSLASVHLFTAKEVSFSNKPYPFRGEFCSQGV
EGLIVGFIRSMCQTAQSFCDSPGEKGGATPPALLLLLRLCLDYETATISYILTLDTEQFLVQDQSPVTP
VSTLCAEARETARRLLTHYVKVQGLVISQMLRKS VETRDWLSTLEPRNVRVAVMKRVVEDTTAIDVQVGLL
YEEGVRKAQSSDSSKRTFSVYSSSRQQGRYAPSYTPSAPMDTNLLSNIQKLF SERIDVFSPEFVKVSVL
TGIKISLKTLLCEVRLRTFGRFGLQQVQVDCHFLLQLYLWRFVADEELVHLLLDEVVASAALRCPDPVPM
EPSVVEVICERG

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9095_h05.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



ACCN: NM_001081041

ORF Size: 2346 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:

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001081041.1](#), [NP_001074510.1](#)

RefSeq Size: 2631 bp

RefSeq ORF: 2349 bp

Locus ID: 68505

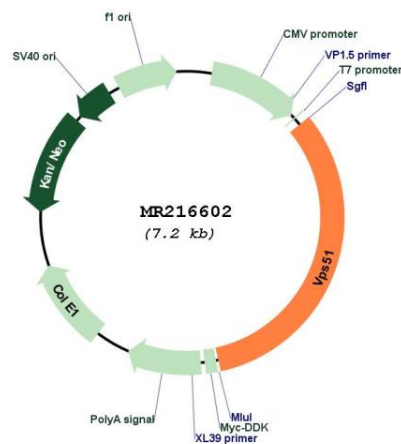
UniProt ID: [Q3UVL4](#)

Cytogenetics: 19 A

MW: 86.2 kDa

Gene Summary: Acts as component of the GARP complex that is involved in retrograde transport from early and late endosomes to the trans-Golgi network (TGN). The GARP complex is required for the maintenance of protein retrieval from endosomes to the TGN, acid hydrolase sorting, lysosome function, endosomal cholesterol traffic and autophagy. VPS51 participates in retrograde transport of acid hydrolase receptors, likely by promoting tethering and SNARE-dependent fusion of endosome-derived carriers to the TGN. Acts as component of the EARP complex that is involved in endocytic recycling. The EARP complex associates with Rab4-positive endosomes and promotes recycling of internalized transferrin receptor (TFRC) to the plasma membrane.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR216602

