

## Product datasheet for MR217010

### Zfyve27 (NM\_001164531) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Zfyve27 (NM_001164531) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Zfyve27
Synonyms:	2210011N02Rik; 9530077C24Rik; AI426636; AI593546; AI835681
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR217010 representing NM_001164531 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCAGACTTCGGATCGGGACCTGAGTGGGCCGGAGGCGAGCCCCAGCGGGATGCCTGAGGTTCTCTCTG  
AGTGTCCACCTGCCCTACCAAGTCAGCAGCGTTTGTATCTTTCAACCTGGTCTGTCTACAAGAGGCT  
GGAGATCTACCTGGAACCCCTGAAGGATGCAGGGGACGGTGTTCGATACTTGCTAAGGTGGCAGATGCCT  
TTGTGTTCTTGTGACTTGCTGGGCCCAACATCTTGTTCCTCACTTTGAACGAGGGTGCCTGGTACT  
CCATGGGTGCCTTGATGATCTCGGTGCCCTACTGGGCTACCTTCAGGAGGTGTGCCGGGACAGCT  
GCCAGAGTCGGAGCTGATGCGGAGGAAGTACCACAGCAT AAGGCAGGAAGACCTGCAGAGAGTTCGCCTT  
TCCCGAGTGCACCTTTCCCGCCCTGAGGCTGTTGCTGAGGTGAAGAGCTTCTTGATCCAACCTGGAAGCCT  
TCTTGGCCCGCTGTGCTATACCTGCGAGTCAGCCTACCGTGTACTTCACTGGGAGAACCCCGTGGTGTG  
CTCACAGTTCTATGGCGCTCTTCTGGGCATGGTGTGCATGCTCTACCTGTACCGCTCTGCTGGTCCCT  
GCCCTGTAAATAGCACACTCTTCTGGGAAATGGGGACTTCTCCGAGTGGTGTGTGAGTACAGGGCCT  
GCCTGCAGCGGAGGATGAACCCCGGCAGGAAGAGTGTGCTGTGAGAGCTCAGCACTGCAGGGGCGCG  
AGGGAGGGGCTGCTGGACAGCTCGCTGCCCCACACCCACCGAGGACCTCACGCCAGGCAGTGTGGAG  
GAAGCTGAGGAGGCTGAGCCAGATGAGGAGTTCAAAGATGCAATTGAGGAGGATGAAGAGGGCACCCCGT  
GCCCAGCAGAGGATGAGCTGACCTGCAGGACAATGGATTCCCTCAGCAAGAATGAGGTGCTGCGCAGCAA  
GGTGTCCCGGCTTACAGAGCGGCTTCGCAAGCGTTACCCAACCAATAACTTCGGGAATTGTGACGGCTGT  
GCCGCTACGTTCTCCGTGCTGAAGAAGAGGCGGAGCTGCAGCAACTGTGGGAACAGCTTCTGCTCGCGGT  
GTTGCTCCTTCAAGGTGCCAGGTCTCTATGGGAGCCACAGCTCCTGAAGCCCAGAGAGAGACTGTGTG  
TGTGTGCGCCTCTGCAATCAGACCCTGAGCAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR217010 representing NM\_001164531  
Red=Cloning site Green=Tags(s)

MQTSDRDLSGPEASPSGMPEVLSECPPAPTksAAFDLfnLVLSYKRLIYLEPLKDAGDGVRYLLRWQMP  
 LCSLLTCLGLNlFLTLNEGAWYSMGALMISVPALLGYLQEVCRGQLPESELMRRKYHSIRQEDLQRVRL  
 SRVHLSRPEAVAEVKSFLIQLEAFLARLCYTCESAYRVLHWENPVVSSQFYGALLGMVCMlyLLPLCWVL  
 ALLNstLFLGNGDFFRVVCeyRACLQRRMnPRQEecACEssALQGAGGRLLDSSPAPTPTEDLTPGSVE  
 EAEEAEPDEEFKDAIEEDEEGTPCAEDELTLQDNGFLSKNEVLRskVSRlTERLRKRYPTNnFGNCAGC  
 AATFSVLKkRRRSCnCGNSfCSRCCsFKVPRSSMGATAPEAQRETVcVCAScNQTLsK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001164531

**ORF Size:** 1224 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.

**RefSeq:** [NM\\_001164531.1](#), [NP\\_001158003.1](#)

**RefSeq Size:** 5498 bp

**RefSeq ORF:** 1227 bp

**Locus ID:** 319740

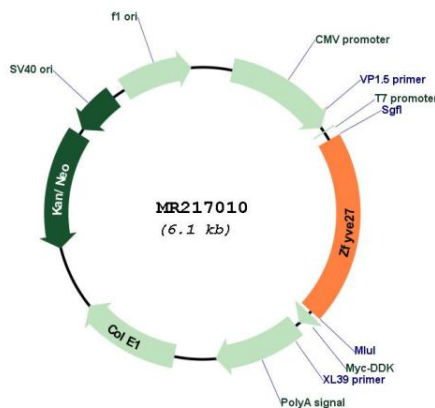
**UniProt ID:** [Q3TXX3](#)

**Cytogenetics:** 19 C3

**MW:** 45.9 kDa

**Gene Summary:** Key regulator of RAB11-dependent vesicular trafficking during neurite extension through polarized membrane transport (By similarity). Promotes axonal elongation and contributes to the establishment of neuronal cell polarity (PubMed:24251978). Involved in nerve growth factor-induced neurite formation in VAPA-dependent manner. Contributes to both the formation and stabilization of the tubular ER network. Involved in ER morphogenesis by regulating the sheet-to-tubule balance and possibly the density of tubule interconnections (By similarity). Acts as an adapter protein that facilitates the interaction of KIF5A with VAPA, VAPB, SURF4, RAB11A, RAB11B and RTN3 and the ZFYVE27-KIF5A complex contributes to the transport of these proteins in neurons. Can induce formation of neurite-like membrane protrusions in non-neuronal cells in a KIF5A/B-dependent manner (PubMed:21976701). [UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR217010