

## Product datasheet for **MG217977**

### Magi2 (NM\_001170746) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Magi2 (NM_001170746) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Magi2
Synonyms:	Acvri1; Acvrip1; Acvrip1; AIP-1; Magi-2; mKIAA0705; S-SCAM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG217977 representing NM_001170746 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCCAAAAGCTTGAAAAAGAAAAGCCACTGGACTAGCAAAGTCCACGAGAGTGTCTTGGCAGGAACC  
CGGAGGGCCAGCTGGGCTTTGAAGTGAAGGGGGCGCGGAAAACGGACAGTTCCTACCTGGGGGAGGT  
GAAGCCGGCAAGGTGGCCTATGAAAGCGGCAGCAAGTTGGTGTCCGAGGAGCTGCTGCTGGAGGTGAAC  
GAGACCCCGTGGCGGGCTCACCATCAGGGACGTTCTGGCCGTGATCAAACACTGCAAGGACCCCTCC  
GGCTCAAGTGTGTCAAGCAAGGAGGAATTGTTGATAAAGACCTTCGTCACCTCAACCTAAGATTTCA  
GAAGGGTTCTGTTGACCATGAAGTACAGCAAATCATCCGTGACAACCTCTACCTCCGACAGTGCCATGC  
ACCACAAGGCCACATAAGGAGGGTGAGGTCCTGGAGTGGACTACATTTTCATAACCGTTGAGGAGTTTA  
TGGAATTTGGAGAAAAGTGGTCTCTCTAGAAAGCGGGACCTATGAAGACAACTACTACGGTACCCCGAA  
GCCTCCAGCTGAACCAGCACCATTATTAATGTAAACAGACCAGATACTTCGGGAGCTACTCCAAGTGTCT  
GAGGGGAAGCGGAAAAGAAATAAGTCAAGTGAACCAATGGAGAAAAGCAAGTATAGAGCCTCCAGAGGAGG  
AAGAAGAAGAAAGGCCTGTAGTCAATGGAACGGCGTGGTCATAACCCAGAAATCCAGTGAACATGAAGA  
CAAAAGTGCAGGTGCCTCAGGGGAGACACCCTCCAGCCTTACCCTGCACCCGTGTACAGCCAGCCCGAA  
GAGCTCAAGGACCAGATGGACGATACAAAGCCAACAAAGCCTGAGGAGAACGAGGACTGTATCCATTGC  
CTGATAACTGGGAAATGGCTACACAGAGAAGGGGGAAGTCTACTTCATTGACCATAACACAAAAGACAAC  
ATCATGGCTGGATCCGCGACTTGCAGAAAAGGCTAAACCTCCAGAAGAGTGCAAAGAAAATGAGCTTCCA  
TATGGCTGGGAAAAATCGATGATCCTATATATGGCACTTACTATGTTGACCACATAAATAGAAGAACAC  
AGTTTGAAAACCTGTCTGGAAGCAAAAAGGAAGCTACAGCAACATAACATGCCCCACACAGAACTTGG  
AGCAAAGCCCCTGCAGGCCCCAGGTTTCCGAGAAAAGCCACTCTCACCCGGGATGCATCCAGTTGAAG  
GGAACGTTCTCAGCACCACCCTCAAAAAGAGCAACATGGGCTTTGGGTTTACCATCATTGGTGGAGACG  
AGCCGGATGAGTTTCTACAGGTGAAAAGTGTATCCCGGATGGGCTGCCGCACAGGATGGGAAAATGGA  
GACAGGTGATGTCATTGTCTATATTAATGAAGTTGTGTCCTGGACACACTCATGCAGATGTTGTCAA



[View online »](#)

CTTTCCAGTCTGTTCTATTGGTCAGAGTGTCAACTTGGTGTGTGTCGTGGCTACCCTTTGCCCTTG  
ACCCTGAAGATCCTGCTAACAGCATGGTGCCACCCTTGAATAATGGAGAGGCCACCTCCGGTGATGGT  
CAATGGAAGACATAACTATGAAACATACTTGAATACATTTCTCGGACCTCACAGTCGGTCCCAGATATT  
ACAGACCGGCCACCTCATTCTTTGCACTCCATGCCAGCTGACGGCCAGCTAGATGGCAGGTATCCACCAC  
CCGTCCATGACGACAATGTGTCTATGGCTTCGTCTGGAGCCACTAAGCTGAACCTATGACCTTAACCAT  
TGTGAAAGGTGCCAGGGATTTGGCTTTACTATTGCCGACAGTCCCACGGGACAGCGGGTAAACAAATC  
CTTGACATTCAGGGATGCCCTGGGCTGTGTGAAGGAGACCTCATTGTTGAGATCAACCAACAGAATGTAC  
AGAACCTGAGCCATACAGAAGTAGTGGATATACTTAAGGACTGCCCGTTGGAAGTGAGACTTCTTTAAT  
CATCCATCGAGGAGGTTTCTTTTCTCCATGAAAACTCCAAGCCTATGATGGACCGATGGGAGAACC  
GGCAGTCCACAAACAAGTTTATCTGCTCCGGCCGTCACAGAACCTGCCCTTCCCACCTGCCCTTCA  
GGAGCTCCTTTCTGATTCAACAGAGGCCCTTGACCCACGGAAGCCTGACCCATATGAGCTCTACGAGAA  
ATCGAGAGCCATTTATGAAAGTAGGCAACAAGTCCACCCAGGACCAGTTTTCGAATGGATTCTCTGGT  
CCAGATTATAAGGAACTGGATGTTACCTTCGGAGGATGGAGTCTGGATTTGGCTTTAGAATCCTTGGG  
GAGATGAACCTGGACAGCCTATTTGATCGGAGCCGTATTGCCATGGGCTCAGCTGACAGAGACGGCC  
TCTACACCCAGGAGATGAGCTTGTCTATGTGATGGGATCCCAGTGGCTGGCAAGACCCACCGCTATGTC  
ATCGACCTCATGCACCAGCGGCCCGCAATGGGCAAGTTAACCTCACTGTGAGAAGAAAGGTGCTATGTG  
GAGGGGAGCCCTGCCAGAGAATGGGAGGAGTCCAGGCTCTGTATCAACTCACCAGACTCTCCGCGCAG  
TGACTATGCCACCTACTCCAACAGCAACCACGCGCCCGCCAGCAGCAATGCCTCACCTCCTGAAGGCTTT  
GCCTCACACAGCTTGAGACAGTGTGTGTCATTACCCGAAAGAAAACGAAGGGTTTGGCTTCGTCA  
TCATCAGCTCTCTGAACAGGCCCTGAGTCTGGAGCCACCATAACTGTGCCCATAAAATTTGGACGAATCAT  
TGATGGGAGCCCTGCAGATCGCTGTGCCAACTCAAAGTGGGCGACCGTATCTTAGCAGTCAACGGCCAG  
TCTATCATCAACATGCCTCAGCTGACATTGTGAAGTCTCATCAAGGACCGCGTCTCAGTGTACCCTTC  
GCATCATTCTCAGGAGGAGCTCAACAGCCCAACATCAGCACCCAGTTCAGAGAAAACAGAGCCCATGGC  
CCAGCAGCACAGCCCTCTGGCCAGCAGAGTCTCTGGCCAGCCAAGCCCGCCACCCCAACAGCCCA  
GTCGCACAGCCAGCTCCTCCCAACCTCTCCAGCTGCAAGGACACGAAAATAGTTACAGGTCAGAAGTTA  
AAGCGAGGCAAGATGTGAAGCCAGACATCCGGCAGCCTCCCTTACAGACTACAGGCAGCCCCCGTGG  
CTACAGGCAGCCCCGGGAGGAGACTACTCACAGCCCCACCCTTGGACTACAGGCAGCACTCTCCAGAC  
ACCAGGCAGTACCCTCTGTGAGACTACAGGCAGCCACAGGATTTTGATTATTTCACTGTGGACATGGAGA  
AAGGAGCCAAAGGATTTGGATTCAGCATTCTGTGGAGGAAGGGAATACAAGATGGATCTGTATGTGTGAG  
ATTGGCAGAGGATGGGCCAGCCATAAGGAACGGCAGGATGAGGGTAGGAGATCAGATCATTGAAATAAT  
GGGAAAGCACACGAGACATGACCCACGCCAGCAATAGAATCATCAAGTCTGGAGGAAGAAGAGTGC  
GGCTGCTGCTGAAGAGAGGCACGGGGCAGTCCCAGGATATGGAATGGTACCTTCCAGCCTCTCCATGTG  
CATGAAAAGTGACAAGCATGGGTCCCCATATTTCTACTTACTGGGCCACCCTAAAGACACGACGAACCC  
ACGCTGGAGTGTGCCGCTGCCGCCGCCAGGCTGCCGGAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG217977 representing NM\_001170746  
 Red=Cloning site Green=Tags(s)

MSKSLKKKSHWTSKVHESVIGRNPEGQLGFELKGAENGQFPYLGEVKPGKVAYESGSKLVSEELLLEVN  
 ETPVAGLTIRDVLAVIKHCKDPLRLKCVKQGGIVDKDLRHYLNLRFKGSDHDLQIIRDNLYLRTVPC  
 TTRPHKEGEVPGVDYIFITVEEFMELEKSGALLESGTYEDNYYGTPKPPAEPAPLLNVDQILPGATPSA  
 EGKRKRKNSVTNMEKASIEPPEEEEEERPVVNGNGVVITPESSEHEDKSAGASGETPSQPYAPVYSQPE  
 ELKDQMDDTKPTKPEENEDSDPLPDNWEMAYTEKGEVYFIDHNTKTTSWLDPRLAKKAKPPEECKENELP  
 YGWEKIDDPYIGTYVVDHINRRTQFENPVLEAKRKLQQHNMPHTELGAKPLQAPGFREKPLFTRDASQLK  
 GTFLSTLLKKSNMGFGTIIGGDEPDEFQVKSVIPDGPAAQDGKMETGDVIVYINEVCVLGHTHADVVK  
 LFQSVPIGQSVNLVLCRGYPLFPDPEDPANSMPVPLAIMERPPPVMVNGRHNHYETYLEYISRTSQSVQPE  
 TDRPPSHLSMPADGQLDGTYPVHDDNVSMASGATQAEMLTLIVKGAQGGFTIADSPGQVRVKQI  
 LDIQGCPGLCEGLIVEINQQNVQNLSHTEVVDILKDCPVGSETSLIIHRGGFFSPWKTPKPMMDRWENQ  
 GSPQTSLSAPAVPQNLFPFPALHRSSFPDSTEAFDPRKPDYELYEKSRAIYESRQVPPRSTFRMDSGG  
 PDYKELDVHLRMESEGFGRILGGDEPGQPILIGAVIAMGSADRDGRLHPGDEL VYVDGIPVAGKTHRYV  
 IDLMHHAARNGQVNLTVRRKVLGCGEPCPENGRSPGSVSTHHSSPRSDYATYSNSNHAAPSSNASPPEGF  
 ASHSLQTSADVVIHRKENEGFGFVIISSLNRPESGATITVPHKIGRIIDGSPADRCALKVGDRI LAVNGQ  
 SIINMPHADIVKLIKDAGL SVTLRIIPQEELNSPT SAPSSEKQSPMAQQHSPLAQQSPLAQSPATPNP  
 VAQPAPPQPLQLQGHENSYSRSEVKARQDVKPDIRQPPFTDYRQPLDYRQPPGGDYSQPPLDYRQHSPD  
 TRQYPLSDYRQPQDFDYFTVDMEKAGKGF GFSIRGGREYKMDLYVLR LAEDGPAIRNGRMRVGDQII EIN  
 GESTRDMTHARAIELIKSGRRVRLLLKRG TGQVPEYGMVPSLSMCMKSDKHGSPYFYLLGHPKDDTNP  
 TPGVLPPLPPPQACRK

TRTRPLE - GFP Tag - V

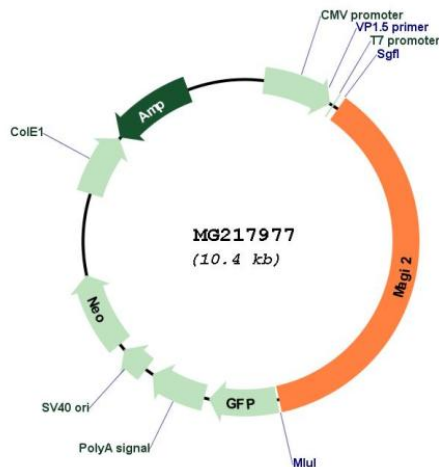
Restriction Sites:

SgfI-MluI

Cloning Scheme:



## Plasmid Map:



ACCN: NM\_001170746

ORF Size: 3825 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\\_001170746.1](#), [NP\\_001164217.1](#)

RefSeq Size: 6736 bp

RefSeq ORF: 3828 bp

Locus ID: 50791

UniProt ID: [Q9WVQ1](#)

Cytogenetics: 5 A3

**Gene Summary:**

Seems to act as scaffold molecule at synaptic junctions by assembling neurotransmitter receptors and cell adhesion proteins. Plays a role in nerve growth factor (NGF)-induced recruitment of RAPGEF2 to late endosomes and neurite outgrowth. May play a role in regulating activin-mediated signaling in neuronal cells. Enhances the ability of PTEN to suppress AKT1 activation (By similarity).[UniProtKB/Swiss-Prot Function]