

## Product datasheet for **MG216689**

### **Fgd2 (NM\_013710) Mouse Tagged ORF Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                     |
| Product Name:             | Fgd2 (NM_013710) Mouse Tagged ORF Clone |
| Tag:                      | TurboGFP                                |
| Symbol:                   | Fgd2                                    |
| Synonyms:                 | Tcd-2; Tcd2; tcs-2; tcs2; ZFYVE4        |
| Mammalian Cell Selection: | Neomycin                                |
| Vector:                   | pCMV6-AC-GFP (PS100010)                 |
| E. coli Selection:        | Ampicillin (100 ug/mL)                  |



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ORF Nucleotide  
Sequence:

>MG216689 representing NM\_013710  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGAGCGAGCCTGTGAGAAGCAGGACTCAGTGTGCAACCTGGTGGCTGTGTTTGAGAACAACAGGACTC  
CGGGAGAAGCACCTGGATCCCATAGCCTTGAGGACCAGCCCATAGCCCTGAACACCAGCTGTCCCTGTC  
CCCAGAGCCTTGGGAGGCACCCCTGTCAAGGAGGCCTTGAAGTCTGAATTCCGGCCAGTGAGCAGGACA  
TATCTGAGTTCCTCAAGAACAAGTTATCGAGTGGGGCTTGAGGAGATCCTGTCAGCCTGGGGTCAGCC  
CGGGGCCAGAGACACAGGAACCTGAGGAGAAGAGGGTCGTGCGAGAGCTTCTGGAGACGGAGCAGGCCTA  
TGTGGCTCGCCTGCACCTGCTTGACCAGGTGTTCTTCCAGGAGCTGCTGAGGGAGGCAGGCCGACAGCAAG  
GCCTTCCCTGAGGACGTGGTGAAGCTCATTTTCTCCAACATCTCCTCCATCTATCGTTTTCCACGCCCAGT  
TCTTCTTCCCGAGCTGCAGCGCGCTGGATGACTGGGACGCCACGCCCGCATTGGGGATGTGATCCA  
GAAGCTGGCCCGTTTCTGAAAATGTACAGCGAGTACGTGAAGAACTTTGAGCGGGCCGCGGAAGTCTG  
GCCACGTGGATGGACAAGTCTCAGCCCTCCAGGAGGTGGTACCCTGCATCCAGTGCAGCGAGGCCCTCCA  
GCAGCCTGACCCTGCAGCACCACATGTTGGAGCCTGTGCAAGAATCCCCTGGTACGAACTGCTGCTCAA  
GGAATATGTGAGAAGCTGCCAGCCAGGCCCCAGACCTCGAAGATGCCAGAGAGCACTGGACATGATC  
TTCTCAGCTGCACAGCACTCCAATGCAGCCATTGCAGAGATGGAGCGGCTGCAGGGCCTGTGGGATGTGT  
ACCAGCGCCTGGGCTTGGAGGATGACATCGTGGACCCCTCCAACACCCTGCTCCGAGAGGGCCCTGTTCT  
CAAGATCTCTTCCGCCGACGACCCAATGGAACGCTACCTGGTTTTGTTCAACAACATGCTTCTGTAT  
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AGGTGCGGGAGCTGACCGATGCTGAGTTCACACTCTTCTGGTGTCCGAAAGCAGCGCACACTGGA  
GCTGCAGGCCCGTCCCAGATGAAATGGTTTTCTGGATGCAGGCCTGCCAGGCACCCATTGACCAGGTT  
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AGGTAGAGGAGCTGGTCTCCGAGCGCCTCAGTGGTCCGGGACAAGATGGTGACCATGTGCATGCGCTG  
CCAGGAGCCCTTCAATGCCCTGACTCGTCGGCGCCACCACTGCCGGGCTTGCGGCTATGTAGTGTGTGCC  
AAGTGCTCTGACTACCGTGCAGGCTGAAATATGACAGCAACAGGCCCAACCGAGTCTGCCTGACCTGCT  
ACACATTTCTCACTGGAACGTAATCCCTCAAGGCAAGGAGGACAAGAGGCGGGCATCTTGGAGAAAGA  
GGCCTCAGCAGCACCCGAGCAGAGTCTGGTGTGACGCTTCTGCAGCTCATAGGGGACAAGTGCAGCAGG  
AGCCTTCCCGGAGCTGGTGTGTGATCCCCGGGATGACCCCTTGTCTGTATGTCTATGCAGCCCCC  
AGGACACAAGGCTCACACCTCCATCCCCTACTGGGCTATCAGGTGATTCAGGGCCCCAGGGGACCC  
TCGGGTTTTCCAGCTGCAACAGTCAGGCCAGCAGTACACCTTCAAGGCCGAGTCTGTGGAGCTGCAGGGC  
CGCTGGGTGACAGCTATCAAGCGTGCAGCCAGTGGCCGACCCCTGAGGGACCTGACGAAGAAGATGTGT  
CTGAC

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG216689 representing NM\_013710  
 Red=Cloning site Green=Tags(s)

```
MERACEKQDSVCNLVAVFENNRTPEAPGSHSLEDQPHSPEHQLSLSPEPWEAPPVKEALKSEFRPVSR
YLSSLKNKLSSGAWRRSCQPGVSPGPETQEPEEKRVVRELLETEQAYVARLHLLDQVFFQELLREAGRSK
AFPEDVVKLIFSNISSIRYFHAQFFLELQRRVDDWAATPRIGDVIQKLAPFLKMYSEYVKNFERAAELL
ATWMDKSQPFQEVVTRIQCEASSSLTLQHMHLEPVQRIPRYELLLKEYVQKLPAPDLEDAQRALDMI
FSAAQHSNAAIAEMERLQGLWDVYQRLGLEDDIVDPSNTLLREGPVLKISFRRSDPMERYLVLFNNMLLY
CVPRVLQVGAQFQVRTRIDVAGMKVRELDAEFPHSFLVSGKQRTLELQARSRDEMVSWMQACQAAIDQV
EKRSETFKAAVQGPQGDTEPKPQVEELGLRAPQWVRDKMVTMCMRCQEPFNALTRRRHHCACGYVCA
KCSYRAELKYDSNRPNRVCLTCYTFLTGNVLPQGKEDKRRGILEKEASAAPEQSLVCSFLQLIGDKCSR
SLPRSWCIVPRDDPLVLVYAAAPQDTKAHTSIPLLYGQVISGPQGDPRVFLQDQSSGQYTFKAESVELQ
RWVTAIKRAASGRTPEGPDEEDVSD
```

TRTRPLE - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_013710

**ORF Size:** 1965 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\\_013710.4](#), [NP\\_038738.2](#)

**RefSeq Size:** 2631 bp

**RefSeq ORF:** 1968 bp

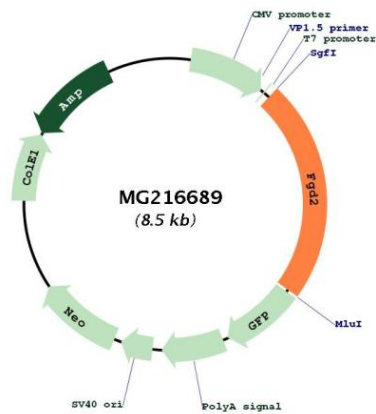
**Locus ID:** 26382

**UniProt ID:** [Q8BY35](#)

**Cytogenetics:** 17 A3.3

**Gene Summary:** Activates CDC42, a member of the Ras-like family of Rho- and Rac proteins, by exchanging bound GDP for free GTP. Activates JNK1 via CDC42 but not RAC1. Binds to phosphatidylinositol 4,5-bisphosphate, phosphatidylinositol 3,4,5-trisphosphate, phosphatidylinositol 5-monophosphate, phosphatidylinositol 4-monophosphate and phosphatidylinositol 3-monophosphate.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MG216689