

Product datasheet for **MR231097**

Fgd4 (NM_001301818) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fgd4 (NM_001301818) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Fgd4
Synonyms:	9030023J02Rik; 9330209B17Rik; Fr; Frabp; ZFYVE; ZFYVE6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR231097 representing NM_001301818
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGGAGTCTAATCCGGCCCCTACTTCTGTACCTCAAAGGGAAGCATAAGTAAAGTATCGGATCTCA
 TCAGCCACTTTGAAGGAGGCAGTGTTCCTCAAGTTACATTGATTTGCAGAAAGATTCTACTATGAACCT
 CAATATTCCTCAAACCTAGGACAGCCTGGGTTAACCTCCTCACCTCCACGAAAAATTTCTGCCCCAGCAC
 TCTCCACAGAAGCAGGAAAAACGACCCAGATCAGACTCAGGGGCAACATGGTTGTTTGCCCAATGGTGTAG
 TGGCTGCACAAAACAGATGGAATGTGAAGATGAGAAGGAGACTACTCTTAGCCAGAGATGGCTATTCA
 GACTGCTGCCCTCCTGATACACATGTGCTGAATGGAGAAAGAAATGAAACCATCACAGATTCTGCA
 TCATCCATAGCCAATAGTCATGATGAAAATGCTTCTGACAGCAGCTGCAGGACTCCAGGGACGGACTTAG
 GGCTTCCCTCAAAGAAGGGGAGCCAGGGATGGACGCTGAGCTCCAAGAGAGGGAAAAATGGGGTGAACAC
 CATGGGATTGGATACGTTGGACAGCACCATGAAGTGAAGGAGACTAATGAACAGAACTTCACAAAATA
 GCCACTGAACTTTTACTTACAGAAAGAGCTTATGTGACCCGGCTCGACCTCCTAGATCAGGTATTTTATT
 GCAAATATTAGAAGAAGCAAACCGAGGCTCATTTCCTGCAGAGATGGTGAATAAAATCTTTTCTAACAT
 TTCATCAATAAATGCCTTCCATAGTAAATTCCTATTACCTGAGCTGGAGAAACGAATGCAAGAATGGGAA
 ACTACACCAGAATTGGAGATATCCTGCAAAAGTTGGCGCCATTCCTTAAGATGTATGGAGAATACGTGA
 AGGGATTTGATAATGCAGTGGAACTGGTAAAACCATGACAGAGCGTGTCCCCAGTTTAAATCAGTGAC
 TGAAGAGATTGAGAAACAGAAGATCTGTGGAAGCTAACGCTGCAGCATCACATGCTGGAGCCTATTCAG
 CGCATTCTCGCTATGAGATGCTCCTGAAGGACTACCTGAAGAAGTTGTCTCCTGACTCCCAGACTGGA
 ATGATGCAAAAAAGTCACTTGAAATATATCTACAGCAGCAAGCCATTCTAATAGTGAATAAGAAAAAT
 GGAGAACCTGAAGAACTTTTAGAAATTTATGAGATGTTGGGAGAAGAAGAGGATATTGTAATCCCTCA
 AATGAACTAATAAAAGAAGGACAATCCTCAAAGTACGAGCTCGGAACACATCAGCACAAGAGCGCTACC
 TCTTCTTATTCAACAACATGTTGCTATATTGTGTGCCAGATTACGTTGGTTGGCTCAAAATTCACAGT
 TCGAACCAGAGTTGGCATTGATGGAATGAAAATTTGTGGAGACTCACATGAAGAAATCCACACACTTTC
 CAGATATCTGGGAAAGAAAGAACCTGGAGCTGCAGGCCAGTTCTGAACAAGACAAGGAAGAAATGGATCA
 AGGCCCTTCAAGAAAGTATTGATGCTTTTCATCAAAGGCATGAACTTTCAGAAATGCAATCGCAAAGGA
 AAATGACATTCCTAGAAAGTTTCTACTGCTGAGCTGGGAAAACGAGCTCCAAGATGGATACGTGATAAT
 GAAGTGACCATGTGTATGAAGTCAAGAGTCTTCAATGCACTGACCAGAAGGCGGCATCACTGCCGGG
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 GGCATTTTAGAGATTGAATCAGCAGAAGTATCAGGAAATAGTGAGGTGTGCAGTTTCTTTCAGTACATGG
 AAAAGTCAAAGCCTTGGCAGAAAATCTGGTGTGTGATCCCAAGCAAGACCCCTTGTGCTGTACATGTA
 TGGCGCTCCTCAGGATGTGAGAGCCCAAGCGACCATACCCTCCTGGGCTACGTTGTGGATGATATGCCT
 AAGAGTGCAGATCTGCCACATAGTTTCAAGCTGACCCAGTCCAAGTCTGTGCATAGCTTTGCTGCAGACA
 ATGAGGAACTGAAACAGAAATGGCTGAAAATCATCCTTCTAGCTGTCACAGGTGAGACACCAGATGGCCC
 AAGTGAGCATCTAGCCACCTTGAACAATCTCCCTGGACCCAAGAAAAGTCAAGATGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR231097 representing NM_001301818
Red=Cloning site Green=Tags(s)

MEESNPAPTSCTSKGKHSKVSDDLISHFEGGSVLSSYIDLQKDSTMNLNIPQTLGQPGLTSSPPRKFLLPQH
 SPQKQENDPDQTQGQHGCLANGVVAQNQMECEDEKETTLPQMAIQTAASPETHVNLNGERNETITDSA
 SSIANSHDENASDSSCRTPGTDLGLPSKEGEPGMDAELQERENGVTMGLDLDQHHEVKETNEQKLHKI
 ATELLLTERAYVSRLLDLDQVFYCKLLEANRGSFPAEMVNKIFSNISSINAFHSKFLLEPELEKRMQEW
 TTPRIGDILQKLAPFLKMYGEYVKGFDNAVELVKTMTTERVPQFKSVTEEQKQKICGSLTLQHHMLEPIQ
 RIPRYEMLLKDYLLKLSPPDWDNAKKSLEIIISTAASHNSAIRKMENLKKLLEIYEMLGEEEDIVNPS
 NELIKEGQILKLAARNTSAQERYLFLFNMLLYCVPRFSLVGSKFTVRTRVGDGMKIVETHNEEYPHTF
 QISGKERTLELQASSEQDKEEWIKALQESIDAFHQRHETFRNAIAKENDIPLEVSTAELGKRAPRWIRDN
 EVTMCMKCKESFNALTRRRHHCACGHVVCWKCSDYKAQLEYDGGRLNKVCKDCYQIISGFTDSEKKRR
 GILEIESAEVSGNSEVCSFLQYMEKSKPWQKIWCVIPKQDPLVLYMYGAPQDVRAQATIPLLGYVDDMP
 KSADLPHSFKLTQSKSVHSFAADNEELKQKWLKILLAVTGETPDGPSEHLATLNNLPGPKKSEC

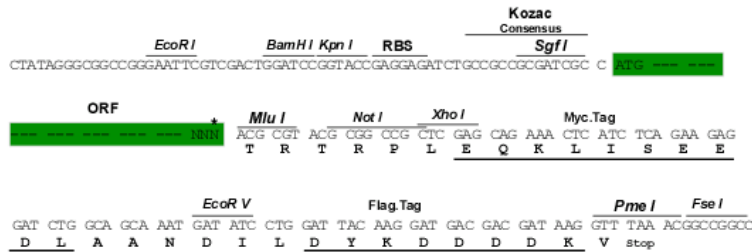
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001301818

ORF Size: 2298 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_001301818.1](#), [NP_001288747.1](#)

RefSeq Size: 8324 bp

RefSeq ORF: 2301 bp

Locus ID: 224014

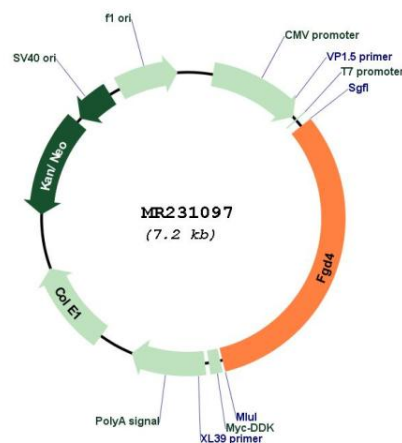
UniProt ID: [Q91ZT5](#)

Cytogenetics: 16 A2- A3

MW: 86.5 kDa

Gene Summary: This gene is a member of the FYVE, RhoGEF and PH domain containing (FGD) family. The encoded protein is a Cdc42-specific guanine nucleotide exchange factor (GEF) that plays an essential role in regulating the actin cytoskeleton and cell morphology. Disruption of the gene in mouse causes abnormal nerve development and dysmyelination. Mutations in a similar gene in human can cause Charcot-Marie-Tooth disease type 4H (CMT4H), a disorder of the peripheral nervous system. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2014]

Product images:



Circular map for MR231097