

Product datasheet for **RG212594**

FGD3 (NM_033086) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FGD3 (NM_033086) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FGD3
Synonyms:	ZFYVE5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG212594 representing NM_033086
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGTCAGGCAGGGGTCTCAACCCCTCCAGGACCCATTGCTGCCCTAGGGATGCCAGACACTGGGC
 CTGGCAGTTCCTCCCTAGGGAAGCTTCAGGCGCTCCCTGTTGGGCCAGAGCCCACTGTGGGACCCCTGT
 CAGCCTGGCTGCAGCAGGGGACGGCTCTCCAGACATAGGCCCCACGGGAGAGCTGAGTGGTAGCTTAAAG
 ATCCCCAACCGGGACAGCGGGATCGACAGTCCCTCCTCCAGTGTGGCTGGAGAGAACTTTCCCTGCGAGG
 AGGGCTTGGAGGCTGGCCCAAGCCCACTGTACTGGGGCGCACGCAGAGATGGCCCTGGACAGCCAGGT
 CCCGAAGGTACCCCCAGGAGGAGGGACAGCGACGTGGGTGAGGAACCTGACTCTGAGAACACCCCC
 CAGAAGGTGACAAGGATGCCGGCTGGCCAGCACTCTGGCCCCAGAAGCTTCTCCACATTGCCCAGG
 AGCTCCTGCACACCGAGGAGACCTATGTGAAGCGGCTGCACCTGTGGACCAGGTTTTCTGCACCAGGCT
 GACGGATCGGGGATCCCTCCAGAAGTCATCATGGGCATATTCTCTAACATCTCCTCCATCCACCCTTC
 CACGGGAGTTCCCTGCTGCCGGAGCTGAAGACGGGATCACGGAGGAGTGGGACACAAACCCACGGCTCG
 GGGACATCCTGCAGAAGCTGGCCCCATTCTGAAGATGTACGGCGAGTATGTCAAGAACTTTGACCGAGC
 CGTAGGGCTGGTGAACAGTGGACCCAGCGCTCCCACTGTTAAAGACGTGTCACAGCATCCAGAAG
 CAGGAGGTATGCGGGAACCTGACGCTGCAGCACCACATGCTGGAGCCCGTGCAGAGGGTCCCCCGGTACG
 AGCTGTGCTCAAGGACTATCTGAAGAGGCTCCCGCAGGACGCCCCAGACCGGAAGGATGCGGAGAGGTC
 CTTGGAGTCACTCCACAGCCCAACCACTCCAATGCTGCCATTGCGAAAGTGAGAAAATGCACAAG
 CTCTTGGAGGTGTACGAGCAGCTGGGTGGGAAGAAGACATTGTCAACCCGGCCAATGAACTGATCAAGG
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 CATGATCCTTTACTGTGTGCCAAAGCTGCGGCTCATGGGCCAGAAGTTCAGCGTCCGGGAGAAGATGGAC
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 GATCCCCAGGTGCTGCACCTGCAGGGAGGCAGCCAGGACGGCCGGCTGCCCCGACCATCCCTCTCCCCA
 GCTGCAAAGTGTGTCGGGACCTGAGGAGAGGCTGGACTCGGGGCATGTGTGGAAGTGCAGTGGGC
 CAAGCAGTCTGGTACCTGAGCGCCTCTCCGACAGCTGCAGCAGCAGTGGCTGGAAACCTAAGCACT
 GCTGCCCATGGGACACGGCCAGGACAGCCCGGGGCCCTGCAGCTTCAAGTCCCTATGGGCGCAGCTG
 CTCCG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG212594 representing NM_033086
 Red=Cloning site Green=Tags(s)

MESGRGSSTPPGPIAALGMPDTGPGSSSLGKLQALVGPRAHCGDPVSLAAAGDGSPIGPTGELSGSLK
 IPNRDSGIDSPSSSVAGENFPCEEGLEAGPSPTVLGAHAEMALDSQVPKVTPQEEADSDVGEEDSENTP
 QKADKDAGLAQHSGPQKLLHIAQELLHTEETYVKRLHLLDQVFCTRLTDAGIPPEVIMGIFSNISSIHRF
 HGQFLLPELKTRITEEWDNPRLDILQKLAPFLKMYGEYVKNFDRAVGLVSTWTQRSPLFKDQVHHSIQK
 QEVCGNLTQHHMLEPVQRVPRYELLLKDYLKRLPQDAPDRKDAERSLELI STAANHSNAAIRKVEKMHK
 LLEVYEQLGGEEDIVNPANELIKEGQIQKLSAKNGTPQDRHLFLFNSMILYCVPKRLRMGQKFSVREKMD
 ISGLQVQDIVKPNTAHTFIITGRKRSLELQTRTEEEKKEWIIQATIEKHKQNSETFKAFFGAFSQDED
 PSLSPDMPITSTSPVEPVVTTTEGSSGAAGLEPRKLSKTRRDKKQSCKSCGETFNSITKRRHHCKLCGA
 VICGKCSEFKAENSRQSRVCRDCF LTQPVAPESTEKTPTADPQPSLLCGPLRLSESGETWSEVWAAIPMS
 DPQVLHLQGGSQDGRPLRTIPLPCKLSVPDPEERLDSGHVWKLQWAKQSWYLSASSAELQQWLETLST
 AAHGDTAQDSPGALQLQVPMGAAAP

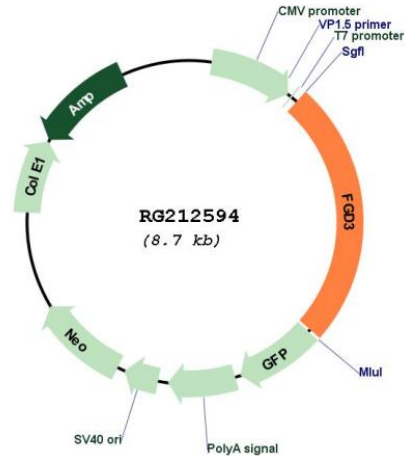
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: NM_033086

ORF Size: 2175 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_033086.2](#), [NP_149077.2](#)

RefSeq Size: 3370 bp

RefSeq ORF: 2178 bp

Locus ID: 89846

UniProt ID: [Q5JSP0](#)

Cytogenetics: 9q22.31

Protein Pathways: Regulation of actin cytoskeleton

Gene Summary: Promotes the formation of filopodia. May activate CDC42, a member of the Ras-like family of Rho- and Rac proteins, by exchanging bound GDP for free GTP. Plays a role in regulating the actin cytoskeleton and cell shape (By similarity).[UniProtKB/Swiss-Prot Function]