

Product datasheet for **RC219442**

FGD4 (NM_139241) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FGD4 (NM_139241) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FGD4
Synonyms:	CMT4H; FRABP; ZFYVE6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC219442 representing NM_139241
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**

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Protein Sequence: >RC219442 representing NM_139241
 Red=Cloning site Green=Tags(s)

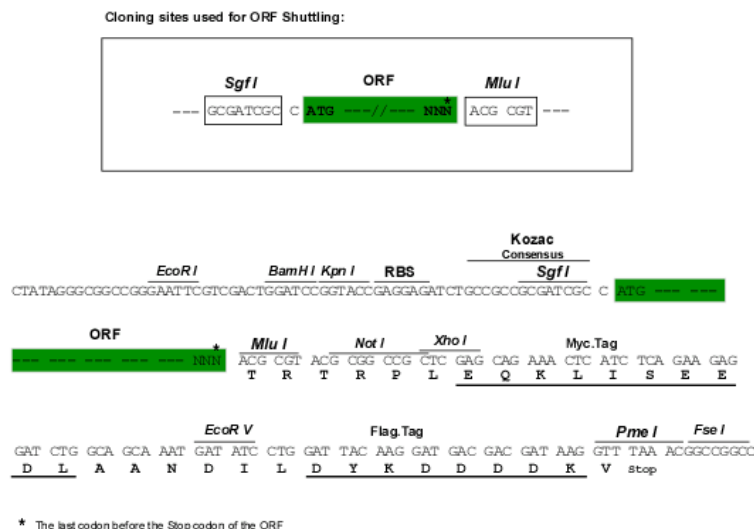
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Chromatograms: https://cdn.origene.com/chromatograms/mk6204_a05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_139241

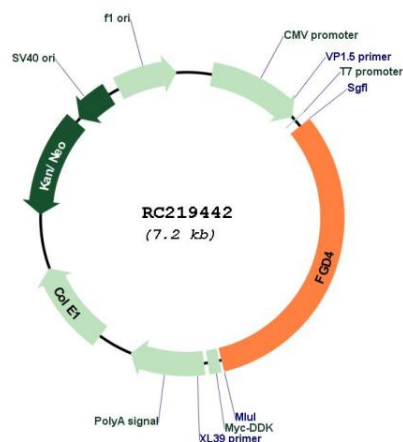
ORF Size: 2298 bp

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](#)

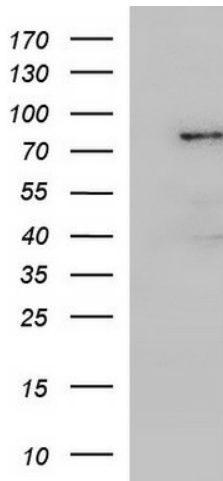
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<u>NM_139241.3</u>
RefSeq Size:	2931 bp
RefSeq ORF:	2301 bp
Locus ID:	121512
UniProt ID:	<u>Q96M96</u>
Cytogenetics:	12p11.21
Domains:	RhoGEF, FYVE, PH
MW:	86.4 kDa
Gene Summary:	This gene encodes a protein that is involved in the regulation of the actin cytoskeleton and cell shape. This protein contains an actin filament-binding domain, which together with its Dbl homology domain and one of its pleckstrin homology domains, can form microspikes. This protein can activate MAPK8 independently of the actin filament-binding domain, and it is also involved in the activation of CDC42 via the exchange of bound GDP for free GTP. The activation of CDC42 also enables this protein to play a role in mediating the cellular invasion of <i>Cryptosporidium parvum</i>, an intracellular parasite that infects the gastrointestinal tract. Mutations in this gene can cause Charcot-Marie-Tooth disease type 4H (CMT4H), a disorder of the peripheral nervous system. Multiple alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2015]

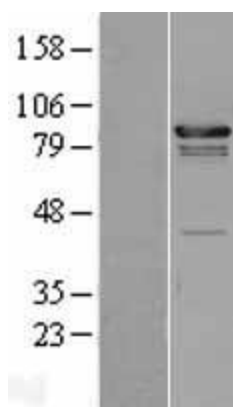
Product images:



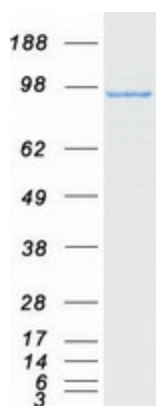
Circular map for RC219442



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY FGD4 (Cat# RC219442, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-FGD4 (Cat# [TA590299]). Positive lysates [LY403384] (100ug) and [LC403384] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403384]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219442 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FGD4 protein (Cat# [TP319442]). The protein was produced from HEK293T cells transfected with FGD4 cDNA clone (Cat# RC219442) using MegaTran 2.0 (Cat# [TT210002]).