

Product datasheet for **RC205133**

FGD1 (NM_004463) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FGD1 (NM_004463) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FGD1
Synonyms:	AAS; FGDY; MRXS16; ZFYVE3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC205133 representing NM_004463
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCATGGCCACCGAGCCCCGGGGGGCGCCGGCCTTCGGAGCCGAACACCCGGCCACGAACCCGCGG
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 CCGAGACAAGACC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC205133 representing NM_004463
Red=Cloning site Green=Tags(s)

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MHGHRAPGGAGPSEPEHPATNPPGAAPPACADSDPGASEPGLLARRGSGSALGGPLDPQFVGPSTSLGA
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RWMAVLGRAGRGDTFCPGPTLSEDTREMEAPVAALGATAEPPESPQTRDKT
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg4683_h10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



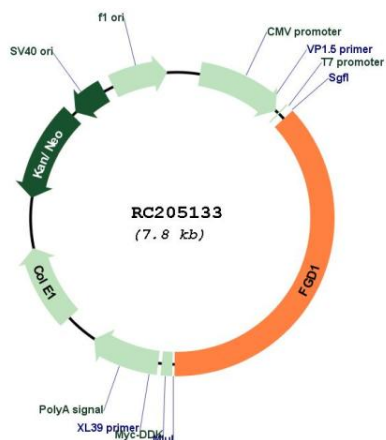
* The last codon before the Stop codon of the ORF

ACCN: NM_004463

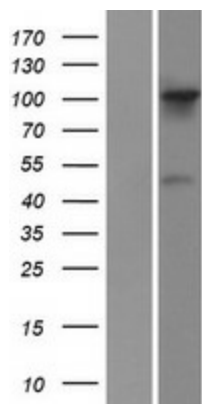
ORF Size: 2883 bp

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:	<ol style="list-style-type: none">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_004463.3
RefSeq Size:	4291 bp
RefSeq ORF:	2886 bp
Locus ID:	2245
UniProt ID:	P98174
Cytogenetics:	Xp11.22
Protein Pathways:	Regulation of actin cytoskeleton
MW:	106.4 kDa
Gene Summary:	This gene encodes a protein that contains Dbl (DH) and pleckstrin (PH) homology domains and is similar to the Rho family of small GTP-binding proteins. The encoded protein specifically binds to the Rho family GTPase Cdc42Hs and can stimulate the GDP-GTP exchange of the isoprenylated form of Cdc42Hs. It also stimulates the mitogen activated protein kinase cascade leading to c-Jun kinase SAPK/JNK1 activation. Defects in this gene are the cause of the faciogenital dysplasia in Aarskog-Scott syndrome and a syndromatic form of X-linked cognitive disability. [provided by RefSeq, Jul 2017]

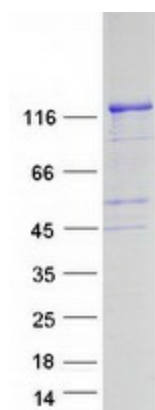
Product images:



Circular map for RC205133



Western blot validation of overexpression lysate (Cat# [LY417971]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205133 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FGD1 protein (Cat# [TP305133]). The protein was produced from HEK293T cells transfected with FGD1 cDNA clone (Cat# RC205133) using MegaTran 2.0 (Cat# [TT210002]).