

## Product datasheet for SC117376

### FGD1 (NM\_004463) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	FGD1 (NM_004463) Human Untagged Clone
Tag:	Tag Free
Symbol:	FGD1
Synonyms:	AAS; FGDY; MRXS16; ZFYVE3
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC117376 sequence for NM_004463 edited (data generated by NextGen Sequencing)

```

ATGCATGGCCACCGAGCCCCGGGGGGCGCCGGGCCTTCGGAGCCCGAACCCGGCCACG
AACCCGCGGGCGCCGCTCCGCCGGCCTGTGCCACTCGGACCCTGGAGCCTCGGAACCC
GGACTGCTGGCGCGCAGGGGCTCAGGTTTCGGCTCTTGGCGGCCACTGGATCCCCAGTTT
GTCGGACCCTCGGACACCAGCCTGGGCGCTGCTCCAGGCCACCGGTCTTGCCCTGCGGT
CCCAGTCCACAGCACCACCGGGCCTGCGCTTCTCTTACCACCTGGAGGGCTCGCAGCCT
CGGCTGGGCTGCACCAGGAAACCGGATCCTGGTTAAAAGTTTGTCCCTTGACCCTGGC
CAAAGCCTAGAGCCTCATCCAGAAGTCCCAGCGGCTTCGCTCAGACCCAGGTCCCCCG
ACTGAAACCCCTAGCCAGCGTCTTCACTACTGAAGCGGGCACCGGGCCCCGAAGCCACAG
GTGCCCCCAAAGCCCAGTACCTGCAGATGCCCGGATGCCCGCCCACTGGAGCCCATC
CCCCCTCCACCATCACGCCCACTGCCTGCCGACCCCGAGTGGCCAAGGGCCTGGCTCCC
AGGGCAGAGGCCAGCCCCAGTTCTGCAGCAGTATCCTCACTGATTGAGAAGTTTGAAGA
GAGCCTGTGATTGTCGCCTCGGATAGACCAGTCCCTGGCCCCAGCCAGGTCCCCAGAG
CCAGTCAATGTTGCCACAGCCAACCTCGCAGCCACCAGTGGCCAGCTCCCCGAGGGTGAG
GCCTCCCGCTGCCTGTTTCTGCTGGCTCCTGGGCCCGGGACGGTGAGAAGGTGCCAAC
CGGGACAGCGCATTGATAGCATCAGCTCGCCATCCAACAGCGAGGAGACCTGCTTCGTC
AGTGATGACGGGCCCCCAGCCACAGCCTCTGCCCTGGGCCCCCTGCCCTGGCTAGTGTG
CCTGTTGCCTTGGCCGACCCCAACCGGCCTGGCTCCCAAGAGGTTGACAGTGACCTGGAG
GAGGAGGACGACGAGGAGGAGGAGGAAGAGAAGGACAGAGAAATCCAGTGCCCTGATG
GAGAGACAGGAGTCTGTGGAGTTGACTGTGCAGCAAAAGTGTTTACATTGCCAATGAG
CTCCTGCAAACTGAGAAGGCTACGTTTCCAGGCTCCATCTCCTGGATCAGGTGTTCTGT
GCCCGGCTGCTGGAAGAAGCTCGGAACCGCAGTTCCTTCCCGCCGACGTTGTCCACGGC
ATCTTCTTAACATCTGCTCCATCTATTGCTTCCACCAGCAGTTCCTGCTGCCTGAGCTA
GAGAAGCGCATGGAGGAATGGGACCGCTATCCACGCATTGGAGACATCCTGCAGAACTG
GCCCCCTTCTCAAGATGTATGGTGAGTATGTGAAGAATTTGACCGGGCCGTGGAGCTG
GTCAACACCTGGACAGAGCGCTCCACCCAGTTTAAAGTATCATCCATGAGGTGCAGAAG

```



View online »

GAGGAAGCCTGTGGCAACCTGACATTGCAGCACCACATGCTGGAGCCTGTGCAGCGCATC  
 CCCCCTATGAGCTTCTTCTCAAGGACTATCTGTTAAAGCTGCCCATGGCTCCCCGGAC  
 AGCAAGGATGCCCAAAGTCTCTGGAGCTGATCGCCACAGCAGCAGAGCACTCGAATGCT  
 GCCATCCGCAAAATGGAGCGAATGCATAAGCTGCTGAAGGTATATGAGCTGTTAGGGGGC  
 GAGGAGGACATTGTCAGCCCCACAAAGAGCTCATAAAGAAGGCCACATCCTTAAGCTG  
 TCAGCAAAGAATGGGACCACTCAAGACCGATAACCTCATACTATTCAACGACCGCTCCTT  
 TACTGCTGCCAGGCTCGGGCTCCTTGGCCAGAAGTTTAGCTGCGGGCACGCATTGAT  
 GTAGATGGCATGGAGCTAAAGGAGAGCTCCAACCTCAATCTGCCTCGAACCTTCCTGGTG  
 TCAGGAAAGCAGCGCTCCCTCGAGCTCCAGGCCAGGACTGAGGAGGAGAAGAAAGACTGG  
 GTCCAGGCCATCAACTCCACCCTCCTGAAGCATGAACAGACGCTGGAGACTTTCAAAGT  
 TTGAAGTCAACAAACAGGGAAGATGAAGACACCCACCCAACTCTCAAACGTGGATCTT  
 GGGGAGCGGGCACCTACGCCATCCGGGAAAAGGAAGTACCATGTGCATGCGTCCAG  
 GAGCCCTCAATTCTATACCAAACGCAGGCACCACTGCAAGGCTGCGGGCATGTGGTT  
 TGTGGGAAGTGTCCGAGTTCGGGGCCCGCTCGTCTATGACAACAACCGCTCCAACCGT  
 GTGTGCACTGATTGCTATGTGGCCTTGACGGGGTGCCTGGGAGCAGTCCAGCCTGCAGC  
 CAGCATACACCCAGCGCGGAGGTCCATCCTGGAGAAACAGGCCTCAGTGGCTGCAGAG  
 AACAGCGTCATCTGCAGTTCCTGCACTACATGGAGAAGGTGGCAAAGGATGGACAAG  
 GCATGGTTCGTGGTCCCTGAAAATGAACCTTGGTGTGTATATCTACGGAGCCCCTCAG  
 GATGTGAAAGCCAGCGCAGCCTGCCCTCATTGGCTTCGAGGTGGGACCGCCGAGGCA  
 GGGGAGCGGCCTGACAGAAGGCATGTCTTCAAGATCACCCAGAGCCACCTCAGCTGGTAC  
 TTCAGCCCTGAGACAGAGAACTACAGCGACGCTGGATGGCTGTGCTTGGCCGGGGGGC  
 CGAGGGGACACGTTCTGCCCGGGGCCACACTGTCTGAGGACAGGGAGATGGAGGAGGCA  
 CCGGTGGCTGCTTAGGAGCCACTGCTGAACCCCCGAATCCCCCAGACCCGAGACAAG  
 ACCTAG

Clone variation with respect to NM\_004463.2

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_004463 unedited  
 ATATCCCCGCCCCGTTGNCGCAATGGGCGTAGGCGTGTACGGTGGGAGGTCTATATAAG  
 CAGAGCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTCTTTTTGCAGCGCCCGC  
 GAATTCGGCACAGGCGCCGCTCGGCTGCGGCGGAGGAAGAAGCCTTCCAACAGCCA  
 GGAGAGCCAGATCTATTCCATTTCGGGAGAAAAGAGACCCCGCACTTGGATCCGAC  
 CGACTTCTCGCCCCGGGCCANNCGGAAGTGGCTCGCCGTCCACCGGAGAGTCCCCGCCG  
 AGCGTAGCCCTCCAACCTCGCCCAACCGCAGCCGCATAGACAGCGCTCCCCAGCGGNC  
 CCCGGCCCCGCGAGCCACTCCCCGCGCGGCTCCGNNCNCGCCCCNNCCGCCCCCGN  
 NCCCCGCCCCCCCCNNNNNCCGGCCGCCCGGCCCGCCCCCCCCCCCCCCCCCGCCCN  
 CNCCCCCGCCCCCGCCCCCGGCCGCGCCGCCCGCCCCCCCCCCCCNNCCGGGGG  
 GCCCGCCGCCCGCCCCCCCCCGGCCCGCCCCCNCCCCCCCCCCCCCCCCCCCC  
 GCCCCCCCCCCCGNGCCCCGCGCACTCCGCCCGCCCCCCCCCCCCCCCCCCCC  
 CCCCCNCCCCCNCGCCCGCCCCCCCCCGCGNNNCCCCCCCCCCCCCGCCCCCGC  
 CCCCCCCCCCGCCCGCCCCNCGCGCCGCCNCGCCCCCCCCCGNGCCCGCCCGCC  
 GGNCNCCCCGCCCCCCCCNNCCCCGCGNCCCCCCCCCGCCCCCGCCCCC  
 CCNNNCCCNCCGNCNCGNCGCCCCCGNCCCCCNCCNCCCCCCCCCCCCCCCC  
 CCGCCCCCNCNCCNCCCCCCCCCG

**Restriction Sites:**

ECoRI-NOT

**ACCN:**

NM\_004463

**Insert Size:**

5000 bp

<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_004463.2</a> , <a href="#">NP_004454.2</a>
<b>RefSeq Size:</b>	4291 bp
<b>RefSeq ORF:</b>	2886 bp
<b>Locus ID:</b>	2245
<b>UniProt ID:</b>	<a href="#">P98174</a>
<b>Cytogenetics:</b>	Xp11.22
<b>Protein Pathways:</b>	Regulation of actin cytoskeleton
<b>Gene Summary:</b>	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]