

## Product datasheet for **RC211422**

### Fukutin (FKTN) (NM\_001079802) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Fukutin (FKTN) (NM_001079802) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Fukutin
Synonyms:	CMD1X; FCMD; LGMD2M; LGMDR13; MDDGA4; MDDGB4; MDDGC4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC211422 representing NM\_001079802  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGTAGAATCAATAAGAACGTGGTTTTGGCCCTTTAACGCTGACAAGTTCTGCATTTCTGCTGTTTC  
 AGTTGTACTACTACAAGCACTATTTATCAACAAAGAATGGAGCTGGTTTGTCAAAATCCAAGGAAGCCG  
 AATTGGATTTGATAGCACACAGTGGCGTGCAGTTAAAAATTTATTATGTTAACATCCAACCAAAATGTA  
 CCAGTGTTCCTTATTGATCCTTTGATACTGGAATTGATTAATAAGAACTTTGAACAAGTCAAAAATACTT  
 CTCATGGCTCTACTTCACAATGCAAGTTTTCTGTGTTCCAAGAGACTTTACTGCATTTGCACTGCAGTA  
 TCACCTATGGAAGAATGAGGAAGGCTGGTTTCGGATAGCTGAGAATATGGGATTTCAAGTCCAAAGATT  
 GAGAGTAAAGATCCCGGCTAGACGGGATAGACTCACTCTCTGGAAGTAAATCCCGCTGCACTATATCT  
 GCAAACGGCCACTCATGCGATCCACTTGGTAGTCTTTCATGAGAGGAGTGGCAACTACCTCTGGCAGCG  
 CCACTTGAGACTTAAAGAACACATTGACAGGAAATTTGTTCCCTCCGAAAGTTACAGTTTGGTCGTTAT  
 CCAGGAGCTTTTGACAGGCCAGAGTTACAGCAAGTTACTGTTGATGGACTGGAAGTTCTCATTCCAAGG  
 ATCCAATGCATTTGTAGAAGAAGTACCACACTCTAGGTTTATTGAGTGTAGGTATAAAGAAGCTCGAGC  
 ATCTTTTCAGCAGTACCTTGATGATAACACTGTGGAAGCTGTGGCCTTTCCGGAAGAGTCAAAGGAATTA  
 CTGCAACTAGCAGCGAAAACATTAACAAATTTGGGAGTACCATTCTGGCTGAGCAGTGGAACTTGTCTAG  
 GATGGTATCGACAATGCAACATTATTCCTTATAGCAAAGATGTTGACCTAGGAATTTTTATACAAGATTA  
 CAAATCTGATATTATTTAGCATTTTCAGGATGCAGGACTCCGCTCAAACACAAATTTGGGAAGGTAGAA  
 GACAGCTTGGAACTATCCTTCCAGGAAAAGATGATGTAAGAACTGATGTTTTTTCTTCTATGAAGAAA  
 CTGATCACATGTGGAATGGAGGCACTCAGGCCAAAACAGGAAAAAATTCAAATACCTGTTCCGAAGTT  
 TACACTGTGCTGGACTGAGTTTGTAGACATGAAGGTCCATGTACCCTGTGAAACCCCTCGAATACATTGAA  
 GCCAACTATGGTAAAGACCTGGAAGATTCCTGTAAGACGTGGGACTGGAAGCGCTCCTCCCAATGTGC  
 AACCAATGGAATCTGGCCTATTTCTGAGTGGGATGAGGTTATCCAGTTATAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC211422 representing NM\_001079802  
 Red=Cloning site Green=Tags(s)

MSRINKNVVLLALLTLTSSAFLLFQLYYYKHYLSTKNGAGLSKSKGSRIGFDSTQWRAVKKFIMLTSNQNV  
 PVFLIDPLILELINKNFEQVKNTSHGSTSQCKFFCVPRDFTAFALQYHLWKNEEGWFRIAENMGFQCLKI  
 ESKDPRLDGIDSLSGTEIPLHYICKLATHAIHLVVFHERSGNYLWHGHLRLKEHIDRKFVPRKLFQGRY  
 PGAFDRPELQQVTVDGLEVLIPKDPMHFVEEVPHSRFIECRYKEARAFFQQYLDNTVEAVAFRKSAKEL  
 LQLAAKTLNKLGVFWLSSGTCLGWYRQCNIIPYSKDVDLGIIFIQDYKSDIILAFQDAGLPLKHKFGKVE  
 DSLELSFGQKDDVKLDVFFYYEETHMWNNGGTQAKTGKFKYLPKFTLCWTEFVDMKVHVPCTLEYIE  
 ANYGKTKWIPVKTWDWKRSPNVQPNGIWIPISEWDEVIQLY

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6094\\_b10.zip](https://cdn.origene.com/chromatograms/mk6094_b10.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001079802

**ORF Size:** 1383 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\\_001079802.2](#)

**RefSeq Size:** 7456 bp

**RefSeq ORF:** 1386 bp

**Locus ID:** 2218

**UniProt ID:** [O75072](#)

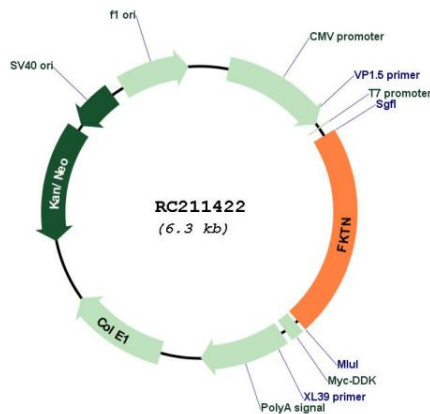
**Cytogenetics:** 9q31.2

**Protein Families:** Transmembrane

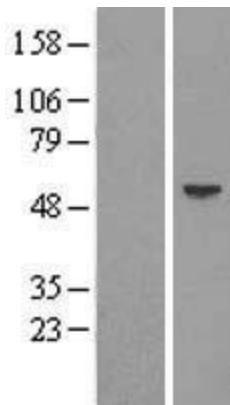
**MW:** 53.5 kDa

**Gene Summary:** The protein encoded by this gene is a putative transmembrane protein that is localized to the cis-Golgi compartment, where it may be involved in the glycosylation of alpha-dystroglycan in skeletal muscle. The encoded protein is thought to be a glycosyltransferase and could play a role in brain development. Defects in this gene are a cause of Fukuyama-type congenital muscular dystrophy (FCMD), Walker-Warburg syndrome (WWS), limb-girdle muscular dystrophy type 2M (LGMD2M), and dilated cardiomyopathy type 1X (CMD1X). Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Nov 2010]

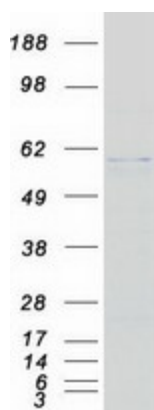
**Product images:**



Circular map for RC211422



Western blot validation of overexpression lysate (Cat# [LY421539]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211422 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FKTN protein (Cat# [TP311422]). The protein was produced from HEK293T cells transfected with FKTN cDNA clone (Cat# RC211422) using MegaTran 2.0 (Cat# [TT210002]).