

## Product datasheet for **RG226445**

### Dysferlin (DYSF) (NM\_001130455) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Dysferlin (DYSF) (NM_001130455) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DYSF
Synonyms:	FER1L1; LGMD2B; LGMDR2; MMD1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG226445 representing NM_001130455 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGTGCTGCCTGCTGGTGAGGGCCAGCAACCTCCCCAGTGCGAAGAAGGACCGGCGCAGCGACCCTG  
TCGCAAGCCTGACTTCCGAGGGGTGAAGAAGAGAACCAAGTCATCAAGAACAGCGTGAACCCTGTATG  
GAATGAGGGATTGAATGGGACCTCAAGGGCATCCCCGGACCAGGGCTCTGAGCTTCATGTGGTGGTC  
AAAGACCATGAGACGATGGGAGGAACAGGTTCTGGGGGAAGCCAAGTCCCCTCCGAGAGGTCTCTCG  
CCACCCTAGTCTGTCCGCCAGCTTCAATGCCCCCTGCTGGACACCAAGAAGCAGCCCACAGGGGCTC  
GCTGGTCTGCAGGTGTCTACACACCGCTGCCTGGAGCTGTGCCCTGTTCCCGCCCCCTACTCCTCTG  
GAGCCCTCCCCGACTCTGCCTGACCTGGATGTAGTGGCAGACACAGGAGGAGAGGAAGACACAGAGGACC  
AGGGACTCACTGGAGATGAGGCGGAGCCATTCTGGATCAAAGCGGAGGGCCCGGGGGCTCCCACCACCC  
AAGGAACTACCTTACGTCCTCCGCCCACTACCCCGGATCAAAGAAAGCGAAGTGCCTACATCT  
AGAAAGCTGTGTGACACAAACCGCAGGATTTCCAGATCAGGGTCCAGGTGATCGAGGGGCGCCAGCTGC  
CGGGGTGAACATCAAGCCTGTGGTCAAGGTTACCGCTGCAGGGCAGACCAAGCGGACGCGGATCCACAA  
GGGAAACAGCCCCTTCAATGAGACTCTTTTCTTCACTTGTGACTCTCTGGGGAGCTGTTTGTG  
GAGCCCATCTTTATCACGGTGGTAGACTCTGTTCTCTCAGGACAGATGCTCTCCTCGGGGAGTCCGGA  
TGGACGTGGGCACCATTTACAGAGAGCCCCGGCACGCCTATCTCAGGAAGTGGTCTGCTCAGACCC  
TGATGACTTCTGCTGGGGCCAGAGGCTACCTGAAAACAAGCCTTTGTGTGCTGGGGCCTGGGGACGAA  
GCGCCTCTGGAGAGAAAAGACCCCTCTGAAGACAAGGAGGACATTGAAAGCAACCTGCTCCGGCCACAG  
GCGTAGCCCTGCGAGGAGCCCACTTCTGCCTGAAGGTCTTCCGGGCCGAGGACTTGCCGACAGATGGACGA  
TGCCGTGATGGACAACGTGAAACAGATCTTTGGCTTCGAGAGTAACAAGAAGAACTTGGTGGACCCCTTT  
GTGGAGGTCAGCTTTCGGGGAAAATGCTGTGCAGCAAGATCTTGGAGAAGACGGCAACCCCTCAGTGA  
ACCAGAACATCACACTGCCTGCCATGTTCCCTCCATGTGCGAAAAAATGAGGATTCGTATCATAGACTG  
GGACCGCCTGACTCAATGACATCGTGGCTACCACCTACCTGAGTATGTCGAAAATCTCTGCCCTGGA



[View online >](#)

GGAGAAATAGAAGAGGAGCCTGCAGGTGCTGTCAAGCCTTCGAAAGCCTCAGACTTGATGACTACCTGG  
GCTTCTCCCCACTTTTGGGCCCTGCTACATCAACCTCTATGGCAGTCCCAGAGAGTTACACAGGCTTCCC  
AGACCCCTACACAGAGCTCAACACAGGCAAGGGGAAGGTGTGGCTTATCGTGGCCGGCTTCTGTCTCC  
CTGGAGACCAAGCTGGTGGAGCACAGTGAACAGAAGGTGGAGGACCTTCTGCGGATGACATCCTCCGGG  
TGGAGAAGTACCTTAGGAGGCGCAAGTACTCCCTGTTTGGCCCTTCTACTCAGCCACCATGCTGCAGGA  
TGTGGATGATGCCATCCAGTTTGGAGTACAGTACAGTCCGGAACACGGGAACAAGTTCGACATGACCTGCCTG  
CCGCTGGCCTCCACCACCTCAGTACAGCCGTGCAGTCTTTGACGGGTGCCACTACTACTACCTACCTGGG  
GTAAACGTGAAACCTGTGGTGGTGTCTCATCTACTGGGAGGACATCAGCCATAGAATCGAGACTCAGAA  
CCAGCTGCTTGGATTGCTGACCGGCTGGAAGCTGGCCTGGAGCAGGTCCACCTGGCCCTGAAGGCGCAG  
TGCTCCACGGAGGACGTGGACTCGTGGTGGCTCAGCTGACGGATGAGCTCATCGCAGGCTGCAGCCAGC  
CTCTGGGTGACATCCATGAGACACCCTCTGCCACCACCTGGACCAGTACCTGTACCAGCTGCGCACCCA  
TCACCTGAGCCAAATCACTGAGGCTGCCCTGGCCCTGAAGCTCGGCCACAGTGAAGTCCCTGCAGCTCTG  
GAGCAGGCGGAGGACTGGCTCCTGCGTCTGCGTGGCCTGGCAGAGGAGCCCCAGAACAGCCTGCCGGACA  
TCGTCTCTGGATGCTGCAGGGAGACAAGCGTGTGGCATACCAGCGGGTCCCGCCACCAAGTCTCTT  
CTCCCGCGGGGTGCCAACTACTGTGGCAAGAATTGTGGGAAGCTACAGACAATCTTTTGAATATCCG  
ATGGAGAAGGTGCTGGCCCGGATGCCAGTGCAGATACGGGTCAAGCTGTGGTTTGGGCTCTCAGTGG  
ATGAGAAGGAGTTCAACCAAGTTTGTGAGGGGAAGCTGTCTGTCTTTGCTGAAACCTATGAGAACGAGAC  
TAAGTTGGCCCTTGTGGGAAGTGGGGCACAACGGGCCTCACCTACCCCAAGTTTCTGACGTACAGGGC  
AAGATCAAGTACCCAAGGACAGCTTCCGCCCTCGGCCGGTGGACCTGGGCTGGAGATTGGTTCGTGT  
GTCCGGAGAAGACTCTGTCCATGACATGGACGCCGTACCTGAGCTTCGTGGAAGAGGTGTTTGAGAA  
CCAGACCCGGCTTCCCGGAGGCCAGTGGATCTACATGAGTGACAACCTACCCGATGTGAACGGGGAGAAG  
GTGCTTCCCAAGGATGACATTGAGTGCCCACTGGGCTGGAAGTGGGAAGATGAGGAATGGTCCACAGACC  
TCAACCCGGCTGTGATGAGCAAGCTGGGAGTATAGCATCACCATCCCCGGAGCGGAAGCCGAAGCA  
CTGGGTCCCTGTGAGAAGATGTACTACACACACCGACGGCGGCTGGTGGCCTGCGCCTGCGCAGGAGGGAT  
CTCAGCCAAATGGAAGCACTGAAAAGGCACAGGCAGGCGGAGGGCGAGGGCTGGGAGTACGCCCT  
CTCTTTTGGCTGGAAGTTCCACCTCGAGTACCGCAAGACAGATGCCTTCCGCCCGCCGCTGGCGCCG  
TCGCATGGAGCCACTGGAGAAGACGGGGCTGCAGCTGTGTTGCCCTTGGAGGGGCCCTGGCGGGCGTG  
ATGGATGACAAGAGTGAAGATTCATGTCCGTCTCCACCTTGGCTTGGTGTGAACAGACCCACGATTT  
CCTGCATATTCGACTATGGGAACCGCTACCATCTACGCTGCTACATGTACCAGGCCCGGGACCTGGCTGC  
GATGGACAAGGACTCTTTTCTGATCCCTATGCCATCGTCTCCTCCTGCACCAGAGCCAGAAGACGGTG  
GTGGTGAAGAACCCTTAACCCACCTGGGACCAGACGCTCATCTTCTACGAGATCGAGATCTTTGGCG  
AGCCGGCCACAGTTGCTGAGCAACCGCCAGCATTGTGGTGGAGCTGTACGACCATGACACTTATGGTGC  
AGACGAGTTTATGGTCCGCTGCATCTGTCAACCGAGTCTGGAACGGATGCCACGGCTGGCCTGGTCCCA  
CTGACGAGGGGCAGCCAGCCGTCGGGGGAGCTGCTGGCCTCTTTTGGCTCATCCAGAGAGAGAAGCCGG  
CCATCCACCATATTCCTGGTTTTGAGGTGCAGGAGACATCAAGGATCCTGGATGAGTCTGAGGACACAGA  
CCTGCCCTACCCACCACCCAGAGGGAGGCCAACATCTACATGGTTCTCAGAACATCAAGCCAGCGCTC  
CAGCGTACCGCCATCGAGATCCTGGCATGGGGCTGCGGAACATGAAGAGTTACCAGCTGGCCAACATCT  
CCTCCCCAGCCTCGTGGTAGAGTGTGGGGCCAGACGGTGCAGTCTGTGTATCAGGAACCTCCGGAA  
GAACCCCAACTTTGACATCTGCACCCTTTCATGGAAGTATGCTGCCAGGGAGGAGCTACTGCCCC  
CCCATACCGTCAAGGTATCGATAACCGCCAGTTTGGCCCGCCGCTGTGGTGGGCCAGTGTACCATCC  
GCTCCCTGGAGAGCTTCTGTGTGACCCCTACTCGGCGGAGAGTCCATCCCCACAGGGTGGCCAGACGA  
TGTGAGCCTACTCAGTCTGGGAAGACGTGCTCATCGACATTGATGACAAGGAGCCCTCATCCCCATC  
CAGGAGGAAGAGTTTATCGATTGGTGGAGCAAATCTTTGCCCTCATAGGGGAGAGGAAAAGTGGCGCT  
CCTACCTGGAGAAGGATTTTACACCCTGAAGTCTATGACACACAGCTGGAGAATGTGGAGGCCTTTGA  
GGGCTGTCTGACTTTTGAACACCTTCAAGCTGTACCGGGCAAGACGCAGGAGGAGACAGAAGATCCA  
TCTGTGATTGGTGAATTAAGGGCTCTTCAAAATTTATCCCTCCAGAAGACCAGCCATCCCCATGC  
CCCCAAGACAGTCCACCAGCTGGCCGCCAGGGACCCAGGAGTCTTGGTCCGTATCTACATTGTCCG  
AGCATTTGGCCTGCAGCCCAAGGACCCCAATGGAAGTGTGATCCTTACATCAAGATCTCCATAGGGAA  
AAATCAGTGAGTGACCAGGATAACTACATCCCCTGCACGCTGGAGCCCGTATTTGGAAAGATGTTGAGC  
TGACCTGCACTCTGCCTCTGGAGAAGGACCTAAAGATCACTCTCTATGACTATGACCTCCTCTCAAAGGA  
CGAAAAGATCGGTGAGACGGTCTGCACCTGGAGAACAGGCTGCTGTCCAAGTTTGGGGCTCGTGTGGA  
CTCCACAGACCTACTGTGTCTTGACCGAACCAGTGGCGGGACCAGCTCCGCCCTCCAGCTCCTCC

ACCTCTTCTGCCAGCAGCATAGAGTCAAGGCACCTGTGTACCGGACAGACCGTGT AATGTTTCAGGATAA  
AGAATATTCCATTGAAGAGATAGAGGCTGGCAGGATCCCAAACCCACACCTGGGCCAGTGGAGGAGCGT  
CTGGCTCTGCATGTGCTTCAGCAGCAGGGCCTGGTCCCGGAGCACGTGGAGTACACGGCCCTCTACAGCC  
CCCTGCAGCCAGACATCGAGCAGGGGAAGCTGCAGATGTGGTTCGACCTATTTCCGAAGGCCCTGGGGCG  
GCCTGGACCTCCCTTCAACATCACCCACGGAGAGCCAGAAGTTTTCTGCGTTGTATTATCTGGAAT  
ACCAGAGATGTATCCTGGATGACCTGACCTCACGGGGGAGAAGATGAGCGACATTTATGTGAAAGGTT  
GGATGATTGGCTTTGAAGAACAAGCAAAGACAGACGTGCATTATCGTTCCTGGGAGGTGAAGGCAA  
CTTCAACTGGAGGTTTATTTCCCTTCGACTACCTGCCAGCTGAGCAAGTCTGTACCATTGCCAAGAAG  
GATGCCTTCTGGAGGCTGGACAAGACTGAGAGCAAAATCCAGCACGAGTGGTGTCCAGATCTGGGACA  
ATGACAAGTTCTCCTTTGATGATTTTCTGGGCTCCCTGCAGCTCGATCTCAACCGCATGCCAAGCCAGC  
CAAGACAGCCAAGAAGTGTCTCTGGACCAGCTGGATGATGCTTTCCACCCAGAATGGTTTGTGTCCCTT  
TTTGAGCAGAAAACAGTGAAGGGCTGGTGGCCCTGTGTAGCAGAAGAGGGTGAGAAGAAAATACTGGCGG  
GCAAGCTGGAAATGACCTTGGAGATTGTAGCAGAGAGTGTGAGCATGAGGAGCGGCCTGCTGGCCAGGGCCG  
GGATGAGCCCAACATGAACCCTAAGCTTGAGGACCCAAGGCGCCCGACACCTCCTTCTGTGGTTTACC  
TCCCATACAAGACCATGAAGTTCATCCTGTGGCGGCTTCCGGTGGGCCATCATCCTTTCATCATCC  
TCTTCATCCTGTCTGTCTCCTGGCCATCTTCATCTACGCCTTCCGAACTATGCTGCCATGAAGCTGGT  
GAAGCCCTTCAGC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG226445 representing NM\_001130455  
 Red=Cloning site Green=Tags(s)

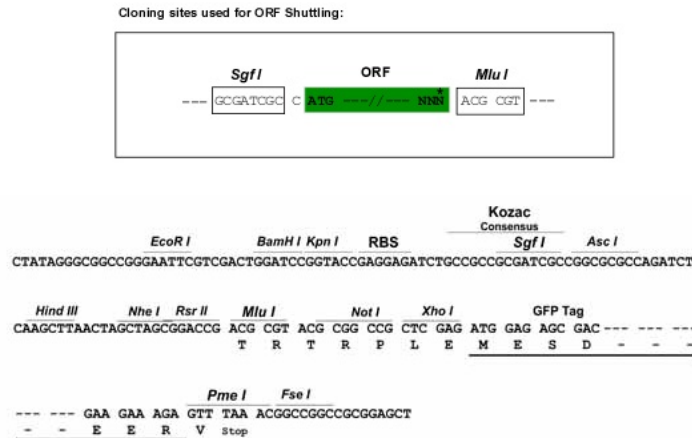
```

MLCCLLVASNLPSAKKDRRSDPVASL TFRGVKKRTKVIKNSVNPVWNEGFEDLKGIPLDQGSSELHVVV
KDHEMGRNRFLGEAKVPLREVLATPSSLASFNAPLLDTKKQPTGASLVLQVSYTLP LPGA VPLFPPPTPL
EPSPTLPDL DVVADTGG EEDTEDQGLTGDEAE PFLDQSGGPGAP TTPRKLPSRPPPHYPG IKRKRSAPTS
RKLLSDKPQDFQIRVQVIEGRQLPGVNIKPVVKVTAAGQTKRTRIHKGNSPLFNETLFFNLFDSPGELFD
EPITVVD SRSRLRTDALLGEFRMDVGTIYREPRHAYLRKWL LLDSDPDDFSAGARGYLKTS LCVLGP GDE
APLERKDPSEDKEDIESNLLRPTGVALRGAHFCLKVFRAEDLPQMDDAVMDNVKQIFGFESNKKNLVDPF
VEVSFAGKMLCSKILEKTANPQWNQNILPAMFPMSCEKMRIRIIDWDRLTHNDIVATTYLSMSKISAPG
GEIEEEPAGAVKPSKASDLDDYLGF LPTFGPCYINLYGSPREFTGF PDPYTELNTGKGEGVAYRGRLLLS
LETKLVEHSEQKVEDLPADDILRVEKYLRRRKYSLFAAFYSATMLQD VDDAIQFEVSI GNYGNKFDMTCL
PLASTTQYSRAVFDGCHYYLPGWNVKPVVVLSSYWEDISHRIETQNQLLGIADRLEAGLEQVHLALKAQ
CSTEDVDSLVAQLTDEL IAGCSQPLGDIHETPSATHLDQYL YQLRTHHL SQITEAALAKLGHSELPAAL
EQAEDWLLRLALAE PQNSLPDIVIWM LQGDKRVAYQRVPAHQVLF SRRGANYCGKNCGK LQTI FLKYP
MEKVPGARMPVQIRV KLVFGLSVDEKEFNQFAEGKLSVF AETYENETKLALVGNWGT TGLTYPKFS DVTG
KTKLPKDSFRPSAGWTWAGDWFVCEK TLLHMDAGHLSFVEEVFENQTRLPGGQWIYMSDNYTDVNGEK
VLPKDDIECLPGKWEDEEWSTDLNRAVDEQGW EYSITIPPERKPKHWVPAEKMYTHRRRRWVRLRRRD
LSQMEALKRHRQAEAE GEGWEYASLFGWKFHLE YRKTD AFRRRRRRRRMEPLEKTGPAAVFALEGALGGV
MDDKSEDSMSVSTL SFGVNRPTISCI FDYGNRYHLRCYMYQARDAAMDKDSFSDPYAIVSFLHQSQKT V
VVKNTLNPTWDQTLIFYEIEIFGEPATVAEQPPSIVVELYDHD TYGADEFMGRCICQPSLERMPRLAWFP
LTRGSQPSGELLASFELIQREKPAIHHIPGF EVQETSRI LDESEDTLPYPP PQREANIYMPQNIKPAL
QRTAIEILAWGLRNMKSYQLANISSPSLVVECGGQTVQSCVIRNLRKNPNFDICTLFMEVMLPREELYCP
PITVKVIDNRQFGRRPVVGQCTIRSLESFLCDPYSAESPSPQGGPDDVSL LSPGEDVLIDIDDKEPLIPI
QEEEFIDWWSKFFASIGEREKCGSYLEKDFDTLKVYDTQLENVEAFEGLSDFCNTFKLYRGTQEETEDP
SVIGEFKGLFKIYPLPEDPAIPMPPRQFHQLAAQGPQECLVRIYIVRAFG LQPKDPNGKCDPYIKISIGK
KSVSDQDNYIPCTLEPVFGKMFELTCTLPLEKDLKITLYDYDLLSKDEKIGETVVDLENRLLSKFGARCG
LPQTYCVSGPNQWRDQLRPSQLLHLFCQQHRVKAPVYRTDRVMFQDKEYSIEEIEAGRIPNPHLGPVEER
LALHVLQQQLVPEHVESRPLYSPLQPDIEQGLQM WVDLFPKALGRPGPPFNITPRRARRFFLRCCIWN
TRDVILDDL SLTG EKMSDIYVKGWMI GFEEHKQKTDVHYRSLGGEGNFNWR FIFPPDYLP AEQVCTI AKK
DAFWRLDKTESKIPARVVFQIWDNDKFSFDDFLGSLQLDLNRMPKPAKTAKKCSLDQLDDAFHPEWVSL
FEQKTVKGWVPCVAEEGK KILAGKLEMTLEIVA ESEHEERPAGQGRDEPNMNP KLEDPRRPDTSFLWFT
SPYKTMKFILWRRFRWAIILFIILFILLFLAIFIYAFPNYAAMKLVKPF S
  
```

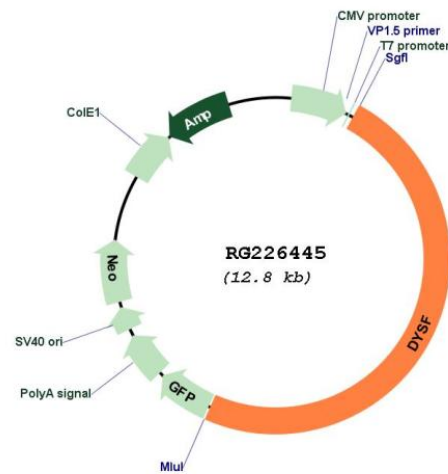
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001130455

ORF Size: 6243 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\\_001130455.2](#)

**RefSeq Size:** 6682 bp

**RefSeq ORF:** 6246 bp

**Locus ID:** 8291

**UniProt ID:** [O75923](#)

**Cytogenetics:** 2p13.2

**Protein Families:** Transmembrane

**Gene Summary:** The protein encoded by this gene belongs to the ferlin family and is a skeletal muscle protein found associated with the sarcolemma. It is involved in muscle contraction and contains C2 domains that play a role in calcium-mediated membrane fusion events, suggesting that it may be involved in membrane regeneration and repair. In addition, the protein encoded by this gene binds caveolin-3, a skeletal muscle membrane protein which is important in the formation of caveolae. Specific mutations in this gene have been shown to cause autosomal recessive limb girdle muscular dystrophy type 2B (LGMD2B) as well as Miyoshi myopathy. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2008]