

Product datasheet for RC206534

Fibromodulin (FMOD) (NM_002023) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fibromodulin (FMOD) (NM_002023) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Fibromodulin
Synonyms:	FM; SLRR2E
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206534 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAGTGGACCTCCCTCCTGCTGCTGGCAGGGCTCTTCTCCCTCTCCAGGCCAGTATGAAGATGACC
CTCATTGGTGGTTCCACTACCTCCGCAGCCAGCAGTCCACCTACTACGATCCCTATGACCCTTACCCGTA
TGAGACCTACGAGCCTTACCCCTATGGGGTGGATGAAGGGCCAGCCTACACCTACGGCTCTCCATCCCT
CCAGATCCCCGCGACTGCCCCAGGAGTGCAGCTGCCACCCAATTCCCACGGCCATGTACTGTGACA
ATCGCAACCTCAAGTACCTGCCCTTCGTTCCCTCCCGCATGAAGTATGTGTACTTCCAGAACACCAGAT
CACCTCCATCCAGGAAGCGCTTTGACAATGCCACAGGGCTGCTCTGGATTGCTCTCCACGGCAACCAG
ATCACCAGTGATAAGGTGGGCAGGAAGGTCTTCTCCAAGCTGAGGCACCTGGAGAGGCTGTACCTGGACC
ACAACAACCTGACCCGGATGCCCGGTCCCTGCCTCGATCCCTGAGAGAGCTCCATCTCGACCACAACCA
GATCTCACGGGTCCCCAACAATGCTCTGGAGGGCTGGAGAACCTCACGGCCTTGTACCTCCAACACAAT
GAGATCCAGGAAGTGGGCAGTTCATGAGGGCCCTCCGGTCACTGATCTTGTCTGGACCTGAGTTATAACC
ACCTTCGGAAGGTGCCTGATGGGCTGCCCTCAGCTCTTGAGCAGCTGTACATGGAGCACAACAATGTCTA
CACCGTCCCCGATAGCTACTTCCGGGGGGCGCCCAAGCTGCTGTATGTGGGCTGTCCCACAACAGTCTA
ACCAACAATGGCCTGGCCTCCAACACCTCAATTCCAGCAGCTCCTTGAGCTAGACCTCTCTACAACC
AGCTGCAGAAGATCCCCCAGTCAACACCAACCTGGAGAACCTCTACCTCCAAGGCAATAGGATCAATGA
GTTCTCCATCAGCAGCTTCTGCACCGTGGTGGAGCTCGTGAACCTCTCCAAGCTGCAGGTGCTGCGCCTG
GACGGGAACGAGATCAAGCGCAGCGCCATGCCTGCCGACGCGCCCTCTGCCTGCGCCTTGCCAGCCTCA
TCGAGATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC206534 protein sequence
Red=Cloning site Green=Tags(s)

MQWTSLLLLAGLFSLSQAQYEDDPHWWFHYLRSQQSTYYDPYDPYETEPYPYGVDEGPAYTYGSPSP
 PDPRDCPQECDCPPNFPTAMYCDNRNLKYLPFVPSRMKYVYFQNNQITSIQEGVFDNATGLLWIALHGNQ
 ITSDKVGKRVFSLRHLERLYLDHNNL TRMPG LPRSLRELHLDHNQISRVPNNAEGLNLTALYLQHN
 EIQEVGSSMRGLRSLILLDL SYNHLRKVPDGLPSALEQLYMEHNNVYTPDSYFRGAPKLLYVRLSHNSL
 TNNGLASNTFNSSSLELDL SYNQLQKIPPVNTNLENLYLQGNRINEFSISSFCTVVDVYVNF SKLQVLRRL
 DGNEIKRSAMPADAPLCLRLASLIEI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6281_a03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_002023

ORF Size: 1128 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_002023.5](#)

RefSeq Size: 3271 bp

RefSeq ORF: 1131 bp

Locus ID: 2331

UniProt ID: [Q06828](#)

Cytogenetics: 1q32.1

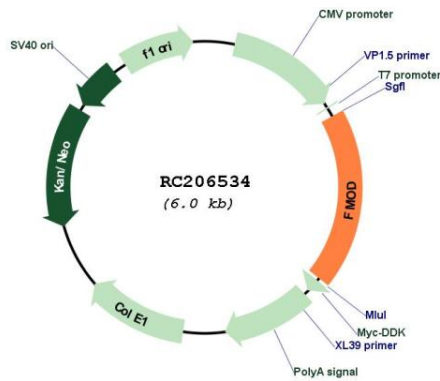
Domains: LRRNT, LRR, LRR_TYP, LRR_BAC, LRR_PS

Protein Families: Druggable Genome, Secreted Protein

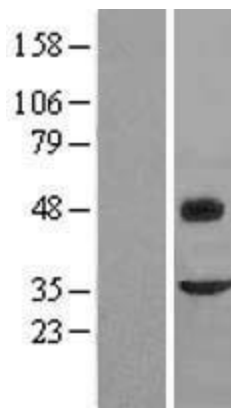
MW: 43.2 kDa

Gene Summary: Fibromodulin belongs to the family of small interstitial proteoglycans. The encoded protein possesses a central region containing leucine-rich repeats with 4 keratan sulfate chains, flanked by terminal domains containing disulphide bonds. Owing to the interaction with type I and type II collagen fibrils and in vitro inhibition of fibrillogenesis, the encoded protein may play a role in the assembly of extracellular matrix. It may also regulate TGF-beta activities by sequestering TGF-beta into the extracellular matrix. Sequence variations in this gene may be associated with the pathogenesis of high myopia. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jun 2013]

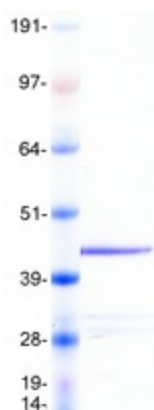
Product images:



Circular map for RC206534



Western blot validation of overexpression lysate (Cat# [LY419579]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206534 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FMOD protein (Cat# [TP306534]). The protein was produced from HEK293T cells transfected with FMOD cDNA clone (Cat# RC206534) using MegaTran 2.0 (Cat# [TT210002]).