

Product datasheet for **SC322272**

OLFM2 (NM_058164) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OLFM2 (NM_058164) Human Untagged Clone
Tag:	Tag Free
Symbol:	OLFM2
Synonyms:	NOE2; NOELIN2; NOELIN2_V1; OlfC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for SC322272
 CTAGGTCGGGACGCCGGCTAGGGGCGCGTCATGTGGCCGCTCACGGTCCC GCCGCCGCT
 GCTGCTGCTGCTGTGCTCAGGCCTGGCCGGACAGACTCTCTCCAGAACCAGAAAGGG
 CTGGCAGCTGTACACCTCAGCCCAGGCCCTGACGGGAAATGCATCTGCACGGCCGTGAT
 CCCAGCGCAGAGTACCTGCTCTCGAGATGGCAGGAGTCGGGAGCTGCGGCAACTGATGGA
 GAAGTCCAGAACGTCTCCAGTCCATGGAGTCTTGAGTTGCGGACGTATCGCGACG
 CCAGTATGTACCGCGCATGGAGACCCCTCATGCGGAGCCTGGATGCGCGGCTCCGGGCAGC
 TGATGGTCCCTCTCGGCCAAGAGCTTCCAGGAGCTGAAGGACAGGATGACGGAAGTGT
 GCCCTGAGCTCGGTCTGGAGCAGTACAAGGCAGACACGCGGACCATTGTACGCTTGG
 GGAGGAGGTGAGGAATCTCTCCGGCAGTCTGGCGGCCATTAGGAGGAGATGGGTGCCTA
 CGGGTATGAGGACCTGCAGCAACGGGTGATGGCCCTGGAGGCCCGGCTCCACGCCTGCGC
 CCAGAAGCTGGGCTGTGGGAAGCTGACCGGGTCACTAACCCCATCACCGTTCGGGCCAT
 GGGTCCCCTCGGCTCTGGATGACTGACACGATGGCCCCAGTGGGATAGCCGGGT
 CTGGTACATGGATGGCTATTACAAAGGCCCGCGGGTCTGGAGTCCGTACCCTGGGAGA
 CTTTCATCAAAGGCCAGAACTTTATCCAGCACCTGCTGCCCCAGCGTGGGCGGGCACGGG
 CCACGTGGTGTACAACGGCTCCCTGTTCTATAACAAGTACCAGAGCAACGTGGTGGTCAA
 ATACCACTTCCGCTCGCGCTCTGTGCTGGTGCAGAGGAGCTCCC GGGCGCCGGTTACAA
 CAACACCTTCCCCTACTCTGGGGCGGCTTCTCCGACATGGACTTCATGGTGGACGAGAG
 CGGGCTCTGGGCTGTGTACACCACCAACCAGAACGCGGGCAACATCGTGGTCAAGCCGGCT
 GGACCCGCACACCCTCGAGGTATGCGGTCTGGGACACCGGCTACCCCAAGCGCAGCGC
 TGGCGAGGCCCTCATGATCTGCGGTGTGCTCTACGTGACCAACTCCCACCTGGCTGGGG
 CAAGTCTACTTCGCCTATTTTACCAACACGTCCAGTTACGAGTACACGGACGTGCCCTT
 CCACAACCAGTATTCCCACATCTCGATGCTGGATTACAACCCCGGGAGCGCGCCCTCTA
 TACCTGGAACAACGCGCCACAGGTGCTCTACAATGTACACCTGTTTACGTCATCAGCAC
 CTCTGGGACCCCTGAGCCAATGCTGTGGCTCGGGCTGCTGCCTGGGGGGCCTCCGGGG
 CTGGGGGGCCTTTTCACTTCTGCCTGTGTCCCTCAAGGGTATCTCTGTCTCTGTCAAG
 CCCTTTCTCCCCGCCTTTTGTGGGCTTTTGTCTCTGCCTATGTATTTCTGTCTATTT
 TTTCAATTTCCCCTTTCTCCTTTATTGATCTCTGCTTTTAAACACCACTTCTTTCTTT
 CTGCCTTTTATGGATGTCTTTTCTTTTATGGCTCTGGTTCTCCAGTCTTTCCGTCT
 CTGCCTCTCTGTCTCTCTCTCTGTCTTCCACCCCTCCCTCCTTGCTTCCACCCA
 TTCTCATCCCTCACTCCACCCCAACCCCAACCCCAAGGAGTTGAGTGCATGGATCTGT
 TTCTTTTTTATTACACTTTTTCTTTCCGGTTTGCCGGAATAAACAGGACCTTTGACAT
 TTGAAA

Restriction Sites: Please inquire

ACCN: NM_058164

OTI Disclaimer: 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).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_058164.1](#), [NP_477512.1](#)

RefSeq Size: 1902 bp

RefSeq ORF: 1365 bp

Locus ID: 93145

UniProt ID: [O95897](#)

Cytogenetics: 19p13.2

Domains: OLF

Protein Families: Druggable Genome, Secreted Protein

Gene Summary: Involved in transforming growth factor beta (TGF-beta)-induced smooth muscle differentiation. TGF-beta induces expression and translocation of OLFM2 to the nucleus where it binds to SRF, causing its dissociation from the transcriptional repressor HEY2/HERP1 and facilitating binding of SRF to target genes (PubMed:25298399). Plays a role in AMPAR complex organization (By similarity). Is a regulator of vascular smooth-muscle cell (SMC) phenotypic switching, that acts by promoting RUNX2 and inhibiting MYOCD binding to SRF. SMC phenotypic switching is the process through which vascular SMCs undergo transition between a quiescent contractile phenotype and a proliferative synthetic phenotype in response to pathological stimuli. SMC phenotypic plasticity is essential for vascular development and remodeling (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) uses an alternate 5' terminal exon, lacks a portion of the 5' coding region, and initiates translation at an alternate start codon, compared to variant 1. The encoded isoform (2) has a distinct N-terminus and is shorter than isoform 1.