

Product datasheet for **SC120238**

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:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC120238 sequence for NM_058164 edited (data generated by NextGen Sequencing)

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ATGTGGCCGCTCACGGTCCC GCCCGCTGCTGCTGCTGCTGCTCAGGCCTGGCCGGA
CAGACTCTCTCCAGAACCAGAAAGAGGGCTGGCAGCTGTACACCTCAGCCCAGGCCCT
GACGGGAAATGCATCTGCACGGCGTGATCCCAGCGCAGAGTACCTGCTCTCGAGATGGC
AGGAGTCGGGAGCTGCGGCAACTGATGGAGAAGGTCCAGAACGTCTCCAGTCCATGGAG
GTCCTTGAGTTGCGGACGTATCGCGACCTCCAGTATGTACGCGGCATGGAGACCTCATG
CGGAGCCTGGATGCGCGGCTCCGGGCAGCTGATGGGTCCCTCTCGGCCAAGAGCTCCAG
GAGCTGAAGGACAGGATGACGGAAGTGTGCCCTGAGCTCGGTCTGGAGCAGTACAAG
GCAGACACGCGGACCATTGTACGCTTGCGGGAGGAGGTGAGGAATCTCTCCGGCAGTCTG
GCGGCCATTCAGGAGGAGATGGGTGCCTACGGGTATGAGGACCTGCAGCAACGGGTGATG
GCCCTGGAGGCCCGGCTCCACGCCCTGCGCCCAGAAGCTGGGCTGTGGGAAGCTGACCGGG
GTCAGTAACCCCATCACCGTTCCGGGCCATGGGGTCCCCTCGGCTCCTGGATGACTGAC
ACGATGGCCCCAGTGCGGATAGCCGGGTCTGGTACATGGATGGTATTACAAAGGCCGC
CGGGTCTGGAGTTCCGTACCCTGGGAGACTTCATCAAAGGCCAGAACTTATCCAGCAC
CTGCTGCCCCAGCCGTGGGCGGGCACGGGCCACGTGGTGTACAACGGCTCCCTGTTCTAT
AACAAAGTACCAGAGCAACGTGGTGGTCAAATACCACTTCCGCTCGCGCTCTGTGCTGGTG
CAGAGGAGCCTCCCGGGCGCCGTTACAACAACACCTTCCCCTACTCCTGGGGCGGCTTC
TCCGACATGGACTTCATGGTGGACGAGAGCGGGCTCTGGGCTGTGTACACCACCAACCAG
AACCGGGCAACATCGTGGTACGCGGCTGGACCCGCACACCCTCGAGGTCATGCGGTCC
TGGGACACCGGCTACCCCAAGCGCAGCGCTGGCGAGGCCTTCATGATCTGCGGTGTGCTC
TACGTGACCAACTCCCACCTGGCTGGGGCCAAGGTCTACTTCGCCTATTTTACCAACAG
TCCAGTTACGAGTACACGGACGTGCCCTTCCACAACCAGTATTCCACATCTCGATGCTG
GATTACAACCCCCGGGAGCGGCCCTCTATACCTGGAACAACGGCCACCAGGTGCTCTAC
AATGTCACCTGTTTACGTCATCAGCACCTCTGGGGACCCCTGA

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Clone variation with respect to NM_058164.2



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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_058164 unedited GNCCCATTCCGCACGAGGGGCTAGGGGTTCTGTCATGTGGCCGCTCACGGTCCC GCCGCCG CTGCTGCTGCTGCTGTGCTCAGGCCTGGCCGGACAGACTCTTCCAGAACCAGAAAGAG GGCTGGCAGCTGTACACCTCAGCCCAGGCCCTGACGGGAAATGCATCTGCACTGTCCGT ANCCCAGCGCAGAGTACCTGCTCTCGAGATGGCAGGAGTCGGGAGCTGCGGCAACTGATG GAGAAGGTCCAGAACGTCTCCAGTCCATGGAGGTCCTTGAGTTGCGGACGTATCGCGAC CTCCAGTATGTACGCGGCATGGAGACCCCTCATGCGGAGCCTGGATGCGCGGCTCCGGGCA GCTGATGGGTCCCTCTCGGCCAAGAGCTTCCAGGAGCTGAAGGACAGGATGACGGAACTG TTGCCCTGAGCTCGGTCTGGAGCAGTACAAGGCAGACACGCGGACCATTGTACGCTTG CGGGAGGAGGTGAGGAATCTCTCCGGCAGTCTGGCGGCCATTGAGGAGGAGATGGGTGCC TACGGGTATGAGGACCTGCAGCAACGGGTGATGGCCCTGGAGGCCGGCTCCACGCCTGC GCCAGAAGCTGGGCTGTGGGAAGCTGACCGGGGTCAGTAACCCCATCACCGTTCGGGCC ATGGGGTCCCCTTCGGCTCCTGGATGACTGACACGATGGCCCCAGTGC GGATAGCCGG GTCTGGTACATGGATGGCTATTACAAAGCCGCCGGGCTCTGGAGTTCCGTACCTGGGA GACTTCATTANAAGCCAGAACTTTATCCAGCACCTGCTGCCCCAACCCGTGGGCGGGCAC CGGCCACGTGGGNCCAACGGCTCCCTGTTT
Restriction Sites:	NotI-NotI
ACCN:	NM_058164
Insert Size:	1960 bp
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).
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:	<ol style="list-style-type: none"> 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.