

## Product datasheet for **MC216060**

### Olfm2 (NM\_173777) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Olfm2 (NM_173777) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Olfm2
Synonyms:	A030009A06Rik
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

**Fully Sequenced ORF:** >MC216060 representing NM\_173777  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGGAAACTGAGACAGACCGGAACAATTATTGCTGGAGGTCAGACTCTCTCCAGAGCCCGAGGAGG  
 GCTGGCAGCTTTATACGTCAGCCAGGCACCTGATGGCAAGTGGCTCTGCACAGCCGTGATCCCTGCGCA  
 GAGCACCTGTGCCCGAGACGGTTCGGAGCAGAGAGCTTCGGCAACTCATGGAGAAGGTCCAGAATGTGTCC  
 CAGTCCATGGAGGTCCTTGAGCTAAGGACATTCGGGGTCTCCAGTATGTTTCGCAGCATGGAGACCTCA  
 TGCGGAGCCTGGATGCAAGGCTCAGGGCAGCCGATGGGTCAGTCTCAGCCAAAAGCTTTCAGGAAGTAA  
 GGACAGGATGACAGAGCTGCTGCCCTGAGTTCAGTGTGGAGCAGTACAAAGCAGACACACGAACCATT  
 GTGCGCCTGCGGGAGGAGGTGAGGAACCTCTGGCAACCTGGTCCATCCAAGAGGAAATGGGTGCCT  
 ACGGGTACGAGGACTTGAACAGCGCGTATGGCCCTGGAAGCCCGACTCCATGCCTGCGCGCAGAAGCT  
 GGGCTGCGGGAAGCTGACAGGCGTCAGTAACCCTATTACCATCCGGGCCATGGGGTCCCCTTCGGTTCC  
 TGGATGACTGACACAATGGCCCCAGTGCAGACAGCAGGGTCTGGTACATGGATGGTTATTACAAAGGCC  
 GCCGAGTGTGGAGTTCGTAATCTGGGAGACTTCATCAAGGCCAGAACTTCATCCAGCACCTGTGCC  
 ACAGCCATGGGCAGGTACGGGCCATGTGGTATACAATGGCTCTCTTCTACAATAAGTACCAGAGCAAT  
 GTGGTGGTCAAGTACCACTTCGGTCCCCTCGGTGCTGGTGCAGAGGAGCCTCCCGGGGCTGGTTACA  
 ATAACACCTTCCCCTATTCTGGGGCGGCTTCTCGGACATGGACTTCATGGTAGACGAGAGTGGGCTGTG  
 GGCTGTGTATACCACCAACCAGAATGCGGGCAACATCGTAGTCAGTCGGTGGACCCTCACACCTGGAG  
 GTCGTGAGATCCTGGGACACCGGTACCCTAAGCGCAGCGCCGGGAGGCCTTCATGATCTGCGGTGCC  
 TCTATGTGACCAACTCTACCTGGCCGGAGCCAAGGTCTACTTTGCGTACTTCACCAACAGTCCAGCTA  
 TGAGTACACGGATGTGCCCTTCCACAACAGTATTTCGCACATCTCGATGCTGGATTACAACCCAGGGAG  
 CGGGCCCTGTATACCTGGAACAACGGGCACCGGTGCTGTACAACGTACCCTGTCCACGTCATCAGCA  
 CTGCCGGGACCCCTAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_173777
- Insert Size:** 1347 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:**
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\\_173777.3](#), [NP\\_776138.2](#)

RefSeq Size: 1525 bp

RefSeq ORF: 1347 bp

Locus ID: 244723

UniProt ID: [Q8BM13](#)

Cytogenetics: 9 A3

**Gene Summary:** Involved in transforming growth factor beta (TGF-beta)-induced smooth muscle differentiation (By similarity). TGF-beta induces expression and nuclear translocation of OLFM2 where it binds to SRF, causing its dissociation from the transcriptional repressor HEY2/HERP1 and facilitating binding of SRF to target genes (By similarity). Plays a role in AMPAR complex organization (PubMed:25218043). 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 (3) differs in the 5' UTR and coding sequence compared to variant 1. The resulting isoform (3) has a shorter and distinct N-terminus compared to isoform 1.