

## Product datasheet for **MG211485**

### Mms19 (NM\_028152) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mms19 (NM_028152) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mms19
Synonyms:	2410001K24Rik; 2610042O15Rik; AI316855; C79368; C86341; Mms19I
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG211485 representing NM_028152 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGCCGCCACCGGTCTGGAGGAGGCAGTGGCGCCTATGGCGCCCTGTGTGGCCTCGTGCAAGACT  
TCGTCAATGGGTCAACAGGAGGGGCCGCTGACCAGGTGGCTGCAGATGTGAAGTCCGGTGGCTATACAGT  
GTTACAAGTAGTAGAAGCCCTTGGGTCTCTCTGGAAAATGCTGAACCCGAACCTCGGGCTCGAGGAGCC  
CAGCTTCTGTACAGGTGCTGCTCCAGTGTCACTCCTTGTCTCGGAGAAGGAAGTGGTCCACCTGATCC  
TGTTCTATGAGAACCGGCTGAAGGACCACCATCTTGTGGTCCCATCTGTCTTACAGGGCCTGAGGGCACT  
GAGCATGTCTGTGGCCCTGCCTCCGGGTCTGGCTGTCTGTGTCTAAAGCCATCTTCCAGGAGGTACAT  
GTACAGTCCCTGTACAGGTGGACCGCCATACTGTCTTACAGCATCATCACTAACTTCATGCGATCACGAG  
AAGAAGAGCTGAAGGGTCTGGGAGCTGACTTACATTTGGCTTCACTCCAGGTGATGGATGGGAGAAGGA  
TCCCCGTAATCTCCTGTGGCTTCCGCATCGTCCATGACCTCATCTCCAAGGACTACAGTCTGGGACCT  
TTCGTGGAAGAGTTATTTGAAGTGACATCTTGTATTTCCCTATTGATTTACCCCTCCGCCTAACGATC  
CTTATGGCATCCAGAGAGAGGATCTCATCTGAGTCTCCGTGCTGTGCTGGCGTACACCGCGCTTTGC  
CGAGTTCTTACTGCCTCTGCTAATTGAGAAAGTGGATTCGGAGATTTAAGTGCCAAGCTGGATTCTCTG  
CAAATCTGAATGCTTGTGCTGTGTATGGACAGAAGGAGCTGAAGGACTTCTGCCAGCCTTTGGG  
CTTCCATCCGTAGAGAGGTTTTCCAGACTGCTAGTGAGCGAGTAGAGGCAGAGGGCCTGGCAGCTCTCCA  
CTCCCTGACTGCGTGTCTGCTGCTGTGCTGAGAGCTGATGCTGAGGACCTCCTTGGTTCCTTCCCTC  
AGCAACATCCTTCAAGACTGCAGGCACCATCTATGTGAACCAGACATGAACTTGTATGGCTAGCGCTA  
AGCTGTTGCAGGCAGCTGCAGGTGCGTCTGCCCGGCCTGTGAGCACCTCACCAGCAACGTGCTTCCCTT  
GCTGCTGGAACAGTTCACAAGCACAGCCAGAGCAACCAGCGTCGGACAATCCTTGAAATGATCCTGGGA  
TTCCTAAAGCTACAGCAGAAATGGAGCTATGAAGACAGAGATGAAAGGCCTCTGAGTAGCTTCAAAGACC  
AGCTATGCTCATTGGTGTTCATGGCTCTAACAGACCCAGCACCCAGCTTCACTTGTGGCATCCGGAC  
GCTCACAGTCTTGGGTGCCAGCCAGGTCTCCTGTCTGCTGAGGACTTGGAGCTGCCAGTAGGTCACCTG



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TACCGACTGACCTTCTGGAGGAAGATCCCAGAGTTGTAGGGTGGCCGCACTGGAGGCATCAGGAACCC  
 TGGCCACTCTGTATCCTGGAGCCTTCAGCAGACACTTGCTCCCCAAGCTTGCTGAGGAGCTGCATAAAGG  
 GGAGTCAGATGTGGCTAGAGCAGATGGTCCCACCAATGTTCCCGGCAATTCGCTGTCTGCAAGCTTTG  
 TCAGCTGTTTTCAACACATCCCAGCATTGTCAAGGAGACACTGCCTCTGCTACTGCAGCATCTCTGCAAG  
 CAAACAAAGGGAATATGGTTACAGAGTCCAGTGAAGTTGTTGCTGTCTGTAGAGTCTCCAGCAGGTGGC  
 AGAAAAATGCCAGCAGGACCTGAGAGCTACTGGTATTTCCACAAGACAGCTGTACCCTGCCTGTTTGCA  
 TTGGCTGTGCAGGCTTCAATGCCAGAGAAGGAATCCTCAGTTCTGAGAAAAGTACTGTTGGAGGATGAGG  
 TCTTGGCTGCGTTGGCATCTGTATTGGCACTGCCACTACCCATCTGAGCCCTGAACTAGCTGCCAGAG  
 CGTCACATGCATCGTGCCCTCTTCTTAGATGGCAACTTCTTTCTACCTGAAAAACAGCTTCCCTGAC  
 CAGTTCAGCCGTTCCAGGATGGCTCCTCTGGGCAGAGCGGCTGGTTGCACTACTTACGGCTTTTGTCT  
 GCTCCCTGCCAGAAATGTGAAATCCCTCAGCTGAACCGACTCATGCGGGAGCTTTTGAAGCAGAGCTG  
 TGGCCACAGCTGTCTTCTCCTCCACTGCCGCACTAAGTGCTTTGCAGGGCTCCTCAACAAGCAGCT  
 CCAGGGCAGCAGTTGGAGGATTCCTCCAGCTCGCTGTGGGCACAGTGGAGGCGGCTGGCCTCTGAAT  
 CCTCCCGTGATCAGGCTTTCACACTGCTGCTCTGGGTAACCAAGGCTCTAGTCTCAGATACCATCTCT  
 CAGTGCCTGCCTGACCACCGGCTCATGGGCTCCTCAGTGATCCAGAATTGGCTGTGCAGCAGCTGAT  
 GGCTTCTCTGTGCTATGTCTGACTGCACTGATGTGTTGACTCGTGCCGGCCATGCTGATGTTCCGATCA  
 TGTTCCGCCAGCGGTTCTTCCAGACAATGTGCCTGCTTTGGTCCAAGGTTTCCATGCCGCTCCCCAAGA  
 TGTGAAGCCAACTATCTGAAGGCTGTCTCAGTACTCAACAGGCTGCCAAGCCTGTGCTTTTACCA  
 GAGCTGCCACACTTCTTCTTCTGCTGTGAAGCATTATCCTGCCCTGACTCTGTGGTCCAGCTTTCCA  
 CTCTGAGCTGTCTCAACCCCTACTACTGGAAGCACCTCAAATCATGAGTCTTATGTTGACACTCTGGT  
 TACAAAATTCAGAACCTCAGCTCCAGTACTCAATGGCTGTCCGGATTGCTGCTCTGCAGTGTATGCAC  
 GCTCTCACTCGCTCCCCACTTCTGTGCTACTGCCATACAAATCTCAGGTCATCCGAGCCTTAGCCAAGC  
 CTCTGGACGACAAGAAGAGACTTGTGCGAAAGGAAGCAGTGTACGCGAGGGGAGAATGGTTCCTACTTGG  
 GAGCCCGGGGAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG211485 representing NM\_028152  
 Red=Cloning site Green=Tags(s)

MAAATGLEEAVAPMGALCGLVQDFVMGQEQPADQVAADVKSQGYTVLQVVEALGSSLENAEPRTRARGA  
 QLLSQVLLQCHSLLSEKEVVHLILFYENRLKDHHLVVPVSVLQGLRALSMSVALPPGLAVSVLKAIFQEVH  
 VQSLQVDRHTVFSIITNFMRSEELKGLGADFTFGFIQVMDGEKDPNLLAFRIVHDLISKDYSLGP  
 FVEELFEVTSYFPIDFTPPNPYGIQREDLILSLRAVLASTPRFAEFLPLLIEKVDSEILSAKLDL  
 QTLNACCAVYQKELKDFLPSLWASIRREVFQTASERVEAEGLAALHSLTACLSCSVLRADAEDLLGSFL  
 SNILQDCRHHLCPEPMKLVWPSAKLLQAAAGASARACEHLTSNVLPLLEQFHKHSQSNQRRRTILEMILG  
 FLKQLQKWSYEDRDERPLSSFQDQLCSLVMAL TDPSTQLQLVGIRTLTVLGAQPGLLSAEDLELAVGHL  
 YRLTFLEEDSQSCRVALEASGTLATLYPGAFSRHLLPKLAEELHKGESDVARADGPTKCSRHFRLQAL  
 SAVSTHPSIVKETLPLLLQHLQANKGNMVTESSEVVAVCQSLQQAQVQDPEYWFHKTAVPCLFA  
 LAVQASMPKESSVLRKVLLEDEVLAAALASVIGTATTHLSPELAAQSVTCIVPLFLDGNTSFLPENSFPD  
 QFQPFQDSSGQRRLLVALLTAFVCSLPRNVEIPQLNRLMRELLKQSCGHSCPFSSTAATKCFAGLLNKQP  
 PGQQLLEEFQLAVGTVEAGLASESSRDQAFLLLWTKALVLRHPLSACL TTRLMGLLSDPELGCAAAD  
 GFSLLMSDCTDVLTRAGHADVRIMFRQRF TDNVPALVQGFHAAPQDVKPNYLKGLSHVLNRLPKPVLLP  
 ELPTLLSLLLEALSCPDSVVQLSTLSCLQPLLEAPQIMSLHVDLTVKFLNLSSSYSMAVRIALQCMH  
 ALTRLPTSIVLLPYKSQVIRALAKPLDDKKRLVRKEAVSARGEWFLLGSPGS

TRTRPLE - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI



<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_028152.3</a> , <a href="#">NP_082428.1</a>
<b>RefSeq Size:</b>	3965 bp
<b>RefSeq ORF:</b>	3096 bp
<b>Locus ID:</b>	72199
<b>UniProt ID:</b>	<a href="#">Q9D071</a>
<b>Cytogenetics:</b>	19 C3
<b>Gene Summary:</b>	Key component of the cytosolic iron-sulfur protein assembly (CIA) complex, a multiprotein complex that mediates the incorporation of iron-sulfur cluster into apoproteins specifically involved in DNA metabolism and genomic integrity. In the CIA complex, MMS19 acts as an adapter between early-acting CIA components and a subset of cellular target Fe/S proteins such as ERCC2/XPD, FANCI and RTEL1, thereby playing a key role in nucleotide excision repair (NER), homologous recombination-mediated double-strand break DNA repair, DNA replication and RNA polymerase II (POL II) transcription. As a CIA complex component and in collaboration with CIAO1 and CIAO2, binds to and facilitates the assembly of most cytosolic-nuclear Fe/S proteins. As part of the mitotic spindle-associated MMXD complex, plays a role in chromosome segregation, probably by facilitating iron-sulfur cluster assembly into ERCC2/XPD. Indirectly acts as a transcriptional coactivator of estrogen receptor (ER), via its role in iron-sulfur insertion into some component of the TFIIF-machinery.[UniProtKB/Swiss-Prot Function]