

## Product datasheet for MR211485

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

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mms19 (NM_028152) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mms19
Synonyms:	2410001K24Rik; 2610042O15Rik; AI316855; C79368; C86341; Mms19I
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR211485 representing NM_028152 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGCCGCCACCGGTCTGGAGGAGGCAGTGGCGCCTATGGCGCCCTGTGTGGCCTCGTGCAAGACT  
TCGTCAATGGGTCAACAGGAGGGGCCGCTGACCAGGTGGCTGCAGATGTGAAGTCCGGTGGCTATACAGT  
GTTACAAGTAGTAGAAGCCCTTGGGTCTCTCTGGAAAATGCTGAACCCGAACCTCGGGCTCGAGGAGCC  
CAGCTTCTGTACAGGTGCTGCTCCAGTGTCACTCCTTGTCTCGGAGAAGGAAGTGGTCCACCTGATCC  
TGTTCTATGAGAACCGGCTGAAGGACCACCATCTTGTGGTCCCCTGTCTTACAGGGCCTGAGGGCACT  
GAGCATGTCTGTGGCCCTGCCTCCGGGTCTGGCTGTCTGTGTCTAAAGCCATCTTCCAGGAGGTACAT  
GTACAGTCCCTGTACAGGTGGACCGCCATACTGTCTTACAGCATCATCACTAACTTCATGCGATCACGAG  
AAGAAGAGCTGAAGGGTCTGGGAGCTGACTTACATTTGGCTTACCCAGGTGATGGATGGGAGAGAAGGA  
TCCCCGTAATCTCCTGTGGCTTCCGCATCGTCCATGACCTCATCTCCAAGGACTACAGTCTGGGACCT  
TTCGTGGAAGAGTATTTGAAGTGACATCTTGTATTTCCCTATTGATTTACCCCTCCGCCTAACGATC  
CTTATGGCATCCAGAGAGAGGATCTCATCCTGAGTCTCCGTGCTGTGCTGGCGTACACCGCGCTTTGC  
CGAGTTCTTACTGCCTCTGCTAATTGAGAAAGTGGATTCGGAGATTTAAGTGCCAAGCTGGATTCTCTG  
CAAACCTGAATGCTTGTGTGTATGGACAGAAGGAGCTGAAGGACTTCTGCCCCAGCCTTTGGG  
CTTCCATCCGTAGAGAGGTTTTCCAGACTGCTAGTGAGCGAGTAGAGGCAGAGGGCCTGGCAGCTCTCCA  
CTCCCTGACTGCGTGTCTGCTGCTGTGCTGAGAGCTGATGCTGAGGACCTCCTTGGTTCCTTCCCTC  
AGCAACATCCTTCAAGACTGCAGGCACCATCTATGTGAACCAGACATGAACTTGTATGGCTAGCGCTA  
AGCTGTTGCAGGCAGCTGCAGGTGCGTCTGCCCGGCCTGTGAGCACCTCACCAGCAACGTGCTTCCCTT  
GCTGCTGGAACAGTTCACAAGCACAGCCAGCAACCAGCGTCGGACAATCCTTGAAATGATCCTGGGA  
TTCCTAAAGCTACAGCAGAAATGGAGCTATGAAGACAGAGATGAAAGGCCTCTGAGTAGCTTCAAAGACC  
AGCTATGCTCATTGGTGTTCATGGCTCTAACAGACCCAGCACCCAGCTTCAAGCTTGTGGCATCCGGAC  
GCTCACAGTCTTGGGTGCCAGCCAGGTCTCCTGTCTGCTGAGGACTTGGAGCTGCCAGTAGGTCACCTG



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TACCGACTGACCTTCTGGAGGAAGATCCCAGAGTTGTAGGGTGGCCGCACTGGAGGCATCAGGAACCC  
 TGGCCACTCTGTATCCTGGAGCCTTCAGCAGACACTTGCTCCCCAAGCTTGCTGAGGAGCTGCATAAAGG  
 GGAGTCAGATGTGGCTAGAGCAGATGGTCCCACCAATGTTCCCGCATTTCCGCTGTCTGCAAGCTTTG  
 TCAGCTGTTTTCAACACATCCCAGCATTGTCAAGGAGACACTGCCTCTGCTACTGCAGCATCTCTGCAAG  
 CAAACAAAGGGAATATGGTTACAGAGTCCAGTGAAGTTGTTGCTGTCTGTAGAGTCTCCAGCAGGTGGC  
 AGAAAAATGCCAGCAGGACCTGAGAGCTACTGGTATTTCCACAAGACAGCTGTACCCTGCCTGTTTGCA  
 TTGGCTGTGCAGGCTTCAATGCCAGAGAAGGAATCCTCAGTTCTGAGAAAAGTACTGTTGGAGGATGAGG  
 TCTTGGCTGCGTTGGCATCTGTATTGGCACTGCCACTACCCATCTGAGCCCTGAACTAGCTGCCAGAG  
 CGTCACATGCATCGTGCCCTCTTCTTAGATGGCAACTTCTTTCTACCTGAAAAACAGCTTCCCTGAC  
 CAGTTCAGCCGTTCCAGGATGGCTCCTCTGGGCAGAGCGGCTGGTTGCACTACTTACGGCTTTTGTCT  
 GCTCCCTGCCAGAAATGTGAAATCCCTCAGCTGAACCGACTCATGCGGGAGCTTTGAAGCAGAGCTG  
 TGGCCACAGCTGTCTTCTCCTCCACTGCCGCACTAAGTGCTTTGCAGGGCTCCTCAACAAGCAGCT  
 CCAGGGCAGCAGTTGGAGGATTCCTCCAGCTCGCTGTGGGCACAGTGGAGGCGGCTGGCCTCTGAAT  
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 GGCTTCTCTGTGCTATGTCTGACTGCACTGATGTGTTGACTCGTGCCGGCCATGCTGATGTTCCGATCA  
 TGTTCCGCCAGCGGTTCTTCCAGACAATGTGCCTGCTTTGGTCCAAGGTTTCCATGCCGCTCCCCAAGA  
 TGTGAAGCCAACTATCTGAAGGTTCTGTCTCAGTACTCAACAGGCTGCCAAGCCTGTGCTTTTACCA  
 GAGCTGCCACACTTCTTCTTCTGCTGGAAGCATTACTGCTCCCTGACTCTGTGGTCCAGCTTTCCA  
 CTCTGAGCTGTCTCAACCCCTACTACTGGAAGCACCTCAAATCATGAGTCTTATGTTGACACTCTGGT  
 TACAAAATTCGAACTCAGCTCCAGTACTCAATGGCTGTCCGATTGCTGCTCTGCAGTGTATGCAC  
 GCTCTCACTCGCTCCCCACTTCTGTGCTACTGCCATACAAATCTCAGGTATCCGAGCCTTAGCCAAGC  
 CTCTGGACGACAAGAAGAGACTTGTGCGAAAGGAAGCAGTGTACGCGAGGGGAGAATGGTCTCCTACTTGG  
 GAGCCCGGGGAGC

ACGCGTACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR211485 representing NM\_028152  
 Red=Cloning site Green=Tags(s)

MAAATGLEEAVAPMGALCGLVQDFVMGQEQPADQVAADVKSQGYTVLQVVEALGSSLENAEPRTRARGA  
 QLLSQVLLQCHSLLSEKEVVHLILFYENRLKDHHLVVPVSVLQGLRALSMSVALPPGLAVSVLKAIFQEVH  
 VQSLQVDRHTVFSIITNFMRSEELKGLGADFTFGFIQVMDGEKDPNLLAFRIVHDLISKDYSLGP  
 FVEELFEVTSYFPIDFTPPPNDPYGIQREDLILSLRAVLASTPRFAEFLPLLIEKVDSEILSAKLDL  
 QTLNACCAVYQKELKDFLPSLWASIRREVFQTASERVEAEGLAALHSLTACLSCSVLRADAEDLLGSFL  
 SNILQDCRHHLCPEPMKLVWPSAKLLQAAAGASARACEHLTSNVLPLLEQFHKHSQSNQRRTILEMILG  
 FLKLQKWSYEDRDERPLSSFQDQLCSLVMAL TDPSTQLQLVGIRTLTVLGAQPGLLSAEDLELAVGHL  
 YRLTFLEEDSQSCRVAALEASGTLATLYPGAFSRHLLPKLAEELHKGESDVARADGPTKCSRHFRLQAL  
 SAVSTHPSIVKETLPLLLQHLQANKGNMVTESSEVVAVCQSLQQVAEKQQDPESYWFHKTAVPCLFA  
 LAVQASMPKESSVLRKVLLEDEVLAALASVIGTATTHLSPELAAQSVTCIVPLFLDNGTSFLPENSFPD  
 QFQPFQDSSGQRRVALLTAFVCSLPRNVEIPQLNRLMRELLKQSCGHSCPFSSTAATKCFAGLLNKQP  
 PGQLEEFQLAVGTVEAGLASESSRDQAFLLLWVKALVLRHYPLSACLTTRLMGLLSDPELGCAAAD  
 GFSLLMSDCTDVLTRAGHADVRIMFRQRFFTDNVPALVQGFHAAPQDVKPNYLKGLSHVLNRLPKPVLLP  
 ELPTLLSLLLEALSCPDSVVQLSTLSCLQPLLEAPQIMSLHVDLTVTKFLNLSSSYSMAVRIAALQCMH  
 ALTRLPTSVMKPYKQVIRALAKPLDDKRLVRKEAVSARGEWFLLGSPGS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mm9047\\_d07.zip](https://cdn.origene.com/chromatograms/mm9047_d07.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_028152

**ORF Size:** 3093 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\\_028152.3](#), [NP\\_082428.1](#)

**RefSeq Size:** 3965 bp

**RefSeq ORF:** 3096 bp

**Locus ID:** 72199

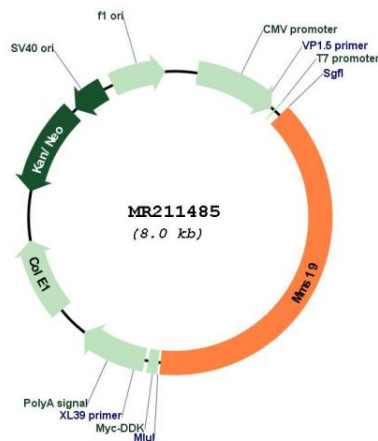
**UniProt ID:** [Q9D071](#)

**Cytogenetics:** 19 C3

**MW:** 113.5 kDa

**Gene Summary:** 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]

**Product images:**



Circular map for MR211485