

Product datasheet for RC224035

MMS19 (NM_022362) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MMS19 (NM_022362) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MMS19
Synonyms:	CIAO4; hMMS19; MET18; MMS19L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC224035 representing NM_022362. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
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CTGGAAGCATCAGGAACCTGGCTGCTCTACCTGTGGCCTTCAGCAGCCACCTCGTACCCAAGCTC
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Protein Sequence:

>Peptide sequence encoded by RC224035
 Blue=ORF Red=Cloning site Green=Tag(s)

MAAAAVEAAAPMGALWGLVHDFVVGQEQEPADQVAADVKSNGYTVLQVVEALGSSLENPEPRTRARAI
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Chromatograms:

https://cdn.origene.com/chromatograms/mk8044_c09.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_022362

ORF Size: 3090 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_022362.5](#)

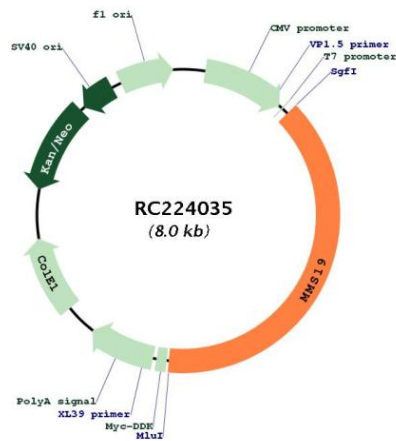
RefSeq Size: 3606 bp

RefSeq ORF: 3093 bp

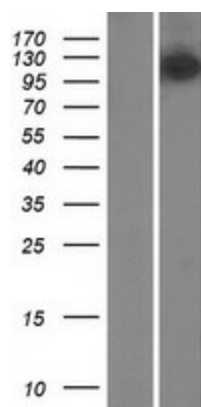
Locus ID: 64210
UniProt ID: [Q96T76](#)
Cytogenetics: 10q24.1
Protein Families: Druggable Genome, Transcription Factors
MW: 113.3 kDa

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 iron-sulfur 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 (PubMed:22678362, PubMed:22678361, PubMed:29225034, PubMed:23585563). 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 (PubMed:20797633). Indirectly acts as a transcriptional coactivator of estrogen receptor (ER), via its role in iron-sulfur insertion into some component of the TFIIH-machinery (PubMed:11279242).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC224035



Western blot validation of overexpression lysate (Cat# [LY411688]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224035 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).