

Product datasheet for MR205034

Mgme1 (NM_028984) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mgme1 (NM_028984) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mgme1
Synonyms:	8430406I07Rik; AI426476
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205034 representing NM_028984 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGAAACTGCCTCTGACCTTCTGCAGGCTGCTTAGCAGGTTAAACAGATTTTCTGTAAAAGCAAGCCCTC
CTGTGAGTTTCTCCACTTTCTCTTATTTGTGTAGCCAGAAGAAGAAAACTTTACGAAGCAGTAGACCA
AGCGAAGTACTCTCGTTTAGTACGCTCTGTCTTGTCCAGAGGCCCGCCAGACTCCAGAGTCGTTGTTC
AAGGAAGATGATGACTGTATGGACCAGTGAGTAAGCATAAAGGCTGCAGAGCCGGAGCCACAGGCCAGAG
TCCCACAACACTGCTTTCTATCTTCAATGAAGAGAGAACCGGAAACCACACAGATGCTTCTTCAAG
CCCTTTGAAGATCCCTTTGCAAAGGAACTCGATACCCAGTGTGACCCGCATCCTTCAGCAGACCATGCCA
CCTGAACAGAGCTTCTTTTTGGAGAGGTGAAAGAGCGGATGGTTCTGGAGCTGGGAGAAGACGGTTTTG
CAGAATACTTCAAATGTGTTTTACAAGGCAAACAGTTCATAAAGCCTTGGAAAGCATACTGTCACC
CCAGGAGAACCTAACAGGGGGAGAAGAGCACCCCAAGTGTGGCTACATCGAAAGCATCCAGCATATTCTG
ACAGAAATCAGTGGTGTGCAAGCTCTGGAGAGTGCCGTCCAGCATGAGGCCTTGAAGTATGTAGGGCTGC
TGGACTGTGTGGCTGAGTACCGGGCAAGCTGTGTGTGATTGATTGGAAGACATCAGAAAAACAAAACC
TTAATTCGAAATACATATGACAACCCGCTGCAAGTTGTGGCCTACATGGGTGCCGTAACCATGATGCC
CACTACAGTTTTCAGGTTCAAGTGTGATTAATTGTGGTGCCTATAAGGATGGGTCCCCTGCCACCCCTC
ACTTCATGGATGAAGAGCTCTGTTCCAAGTATTGGCCAAGTGGCTTCTCCGACTAGAAGAATATACAGA
AAAGCAAAGAACCTGAGCGCTCCAGAGCCAGCG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR205034 representing NM_028984
Red=Cloning site Green=Tags(s)

MKLPLTFCRLLSRLNRFVSKASPPVFSFSTFSYLCSQKKKNSYEAVDQAKYSRLVRSVLSRGPAPTPESLF
 KEDDVL YGPVSKHKA AEPQARVPQHCFPIFNEERTGKPHTDASSSPLKIPLQRNSIPSVTRILQQTMP
 PEQSFLLERWKERMVLELGEDGFAEYTSNVFLQKQFHKALESILSPQENLTGGEHPQCGYIESIQHIL
 TEISGVQALESAVQHEALKYVGLLDCAVEYRGKLCVIDWKTSEKPKPLIRNTYDNPLQVVAYMGAVNHDA
 HYSFQVQCGLIVVAYKDGSPAHPHFMDIELCSKYWAKWLLRLEEYTEKQKNLSAPEPA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9061_f02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_028984

ORF Size: 1014 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_028984.5](#), [NP_083260.1](#)

RefSeq Size: 2836 bp

RefSeq ORF: 1017 bp

Locus ID: 74528

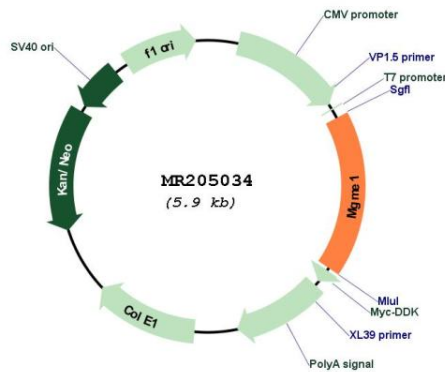
UniProt ID: [Q9CXC3](#)

Cytogenetics: 2 G1

MW: 38.4 kDa

Gene Summary: Metal-dependent single-stranded DNA (ssDNA) exonuclease involved in mitochondrial genome maintenance. Has preference for 5'-3' exonuclease activity but is also capable of endonuclease activity on linear substrates. Necessary for maintenance of proper 7S DNA levels. Probably involved in mitochondrial DNA (mtDNA) repair, possibly via the processing of displaced DNA containing Okazaki fragments during RNA-primed DNA synthesis on the lagging strand or via processing of DNA flaps during long-patch base excision repair (By similarity). Specifically binds 5-hydroxymethylcytosine (5hmC)-containing DNA in stem cells. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR205034