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Product datasheet for MR201741

Nme4 (NM_019731) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nme4 (NM_019731) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nme4
Synonyms:	2610027N22Rik; 2810024O08Rik; 5730493H09Rik; NM23-M4; Nm23M4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR201741 representing NM_019731
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCAGCCTTTTCGGGCGCGTCGCGGCGCTGCGGGCGCTGTTGTGCGGGCCACGCTTTCAGTGCCTGC
TGGTGCGCCCCAGTTCCGGAGGCCCCCCCTGGCCCCAAGAGCGGACGCTGGTTGCTGTGAAGCCAGATGG
GGTACAGAGGAGACTAGTGGGGACTGTGATACAACGCTTTGAGAGGCGGGGCTTCAAGCTCGTGGGGATG
AAGATGCTGCAGGCACCAGAAAGCATCCTTGCTGAGCACTACCGGGACCTACAGAGGAAGCCATTCTACC
CAGCTCTTATCAGCTACATGAGCTCTGGGCCTGTGGTGGCCATGGTCTGGGAAGGCCCCAATGTGGTCCA
TATCTCAAGGGCCATGATAGGACACACCGACTCAACAGAGGCAGCCCCCGGGACAATCAGGGGCGACTTC
AGTGTTCACATCAGCAGGAACGTCATCCATGCTAGCGATTCTGTGGATGGGGCCCAGAGGGAGATCGAGC
TGTGGTTTCAGAGCAGCGAACTGTTGAACTGGGCAGATGGTGGTCACCACAGCAGCTGCTACCCTGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR201741 representing NM_019731
Red=Cloning site Green=Tags(s)

MGSLFGRVAALRALLCGPRFQCLLVRPSSGGPPWPQERTLVAVKPDGVQRRLVGTVIQRFERRGFKLVGM
KMLQAPESILAEHYRDLQRKPFYPALISYMSSGPVVAMVWEGPNVVHISRAMIGHTDSTEAAPGTIRGDF
SVHISRNVIHASDSVDGAQREIELWFQSSELLNWADGGHHSSCYPA

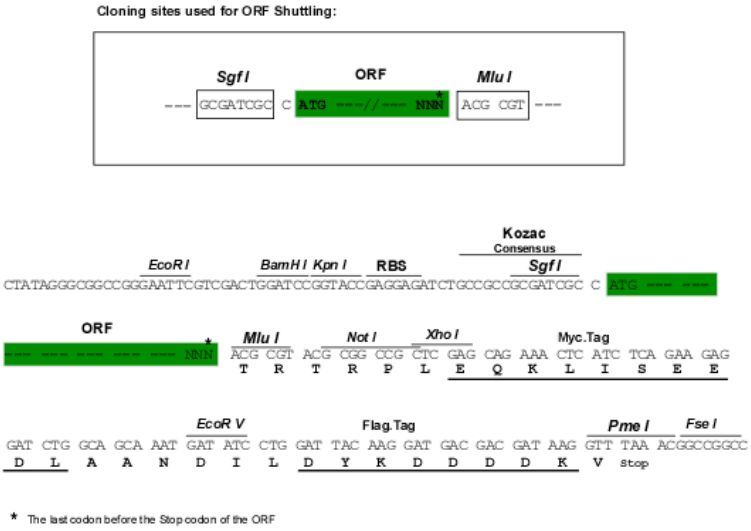
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9039_b12.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_019731

ORF Size: 558 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_019731.1, NP_062705.1

RefSeq Size: 863 bp

RefSeq ORF: 561 bp

Locus ID: 56520

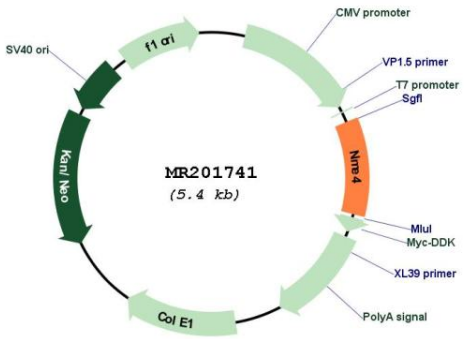
UniProt ID: Q9WV84

Cytogenetics: 17 A3.3

MW: 21 kDa

Gene Summary: Major role in the synthesis of nucleoside triphosphates other than ATP. The ATP gamma phosphate is transferred to the NDP beta phosphate via a ping-pong mechanism, using a phosphorylated active-site intermediate. Through the catalyzed exchange of gamma-phosphate between di- and triphosphonucleosides participates in regulation of intracellular nucleotide homeostasis. Binds to anionic phospholipids, predominantly to cardiolipin; the binding inhibits its phosphotransfer activity. Acts as mitochondria-specific NDK; its association with cardiolipin-containing mitochondrial inner membrane is coupled to respiration suggesting that ADP locally regenerated in the mitochondrion innermembrane space by its activity is directly taken up via ANT ADP/ATP translocase into the matrix space to stimulate respiratory ATP regeneration. Proposed to increase GTP-loading on dynamin-related GTPase OPA1 in mitochondria. In vitro can induce liposome cross-linking suggesting that it can cross-link inner and outer membranes to form contact sites, and promotes intermembrane migration of anionic phosphoplipids. Promotes the redistribution of cardiolipin between the mitochondrial inner membrane and outer membrane which is implicated in pro-apoptotic signaling (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR201741