

## Product datasheet for **MG201741**

### Nme4 (NM\_019731) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Nme4 (NM\_019731) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Nme4  
**Synonyms:** 2610027N22Rik; 2810024O08Rik; 5730493H09Rik; NM23-M4; Nm23M4  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG201741 representing NM\_019731  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGGCAGCCTTTTCGGGCGGTCGCGGCGCTGCGGGCGCTGTTGTGCGGGCCACGCTTTCAGTGCCTGC  
 TGGTGCGCCCCAGTTCGGGAGGCCCCCTGGCCCAAGAGCGGACGCTGGTTGCTGTGAAGCCAGATGG  
 GGTACAGAGGAGGCTAGTGGGACTGTGATACAACGCTTTGAGAGGCGGGCTTCAAGCTGGTGGGGATG  
 AAGATGTTGCAGGCACCAGAAAGCATCCTTGCTGAGCACTACCGGACCTACAGAGGAAGCCATTCTACC  
 CAGCTCTTATCAGCTACATGAGCTCTGGGCTGTGGTGGCCATGGTCTGGGAAGGCCCAATGTGGTTCA  
 TATCTCAAGGGCCATGATAGGACACACCGACTCAACAGAGGCAGCCCCTGGGACAATCAGGGGCGACTTC  
 AGTGTTACATCAGCAGGAACGTCATCCATGCTAGCGATTCTGTGGATGGGGCCAGAGGGAGATCGAGC  
 TGTGGTTTCAGAGCAGCGAACTGTTGAACTGGGCAGATGGTGGTCACCACAGCAGCTGCTACCCTGCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG201741 representing NM\_019731  
 Red=Cloning site Green=Tags(s)

MGSLFGRVAALRALLCGPRFQCLLVRPSSGGPPWPQERTLVAVKPDGVQRRLVGTVIQRFERRGFKLVGM  
 KMLQAPESILAEHYRDLQRKPFYPALISYMSSGPVAMVWEGPNVHISRAMIGHTDSTEAPGTIRGDF  
 SVHISRNVIHASDSVDGAQREIELWFQSSSELLNWADGGHHSSCYPA

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-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.

**RefSeq:** [NM\\_019731.1](#), [NP\\_062705.1](#)

**RefSeq Size:** 863 bp

**RefSeq ORF:** 561 bp

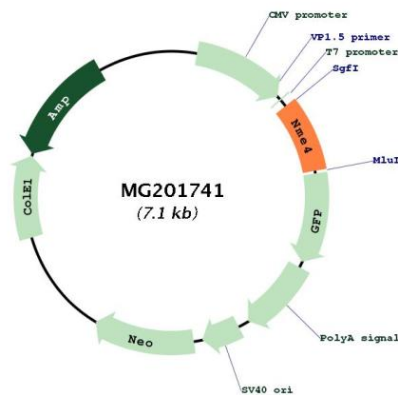
**Locus ID:** 56520

**UniProt ID:** [Q9WV84](#)

**Cytogenetics:** 17 A3.3

**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 phospholipids. 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 MG201741