

## Product datasheet for RC201731

### NM23A (NME1) (NM\_000269) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** NM23A (NME1) (NM\_000269) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** NM23A  
**Synonyms:** AWD; GAAD; NB; NBS; NDKA; NDPK-A; NDPKA; NM23; NM23-H1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC201731 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCCAACGTGTGAGCGTACCTTCATTGCGATCAAACCAGATGGGGTCCAGCGGGTCTTGTGGGAGAGA  
TTATCAAGCGTTTTGAGCAGAAAGGATCCGCCTGTTGGTCTGAAATTCATGCAAGCTCCGAAGATCT  
TCTCAAGGAACACTACGTTGACCTGAAGACCGTCCATTCTTGGCGCCTGGTAAATACATGCACTCA  
GGCCCGGTAGTTGCCATGGTCTGGGAGGGCTGAATGTGGTGAAGACGGCCGAGTCATGCTCGGGGAGA  
CCAACCCTGCAGACTCCAAGCCTGGACCATCCGTGGAGACTTCTGCATACAAGTTGGCAGGAACATTAT  
ACATGGCAGTGATTCTGTGGAGAGTGCAGAGAAGGAGATCGGCTTGTGGTTTACCCCTGAGGAACGGTA  
GATTACACGAGCTGTGCTCAGAAGTGGATCTATGAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC201731 protein sequence  
Red=Cloning site Green=Tags(s)

MANCERTFIAIKPDGVQRGLVGEIIKRFEQKGFRLVGLKFMQASEDLLKEHYVDLKDRPFFAGLVKYMHS  
GPVVAMVWEGLNVVKTGRVMLGETNPADSKPGTIRGDFCIQVGRNIIHGSDSVESAEKEIGLWFHPEELV  
DYTSCAQNIYE

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6092\\_g08.zip](https://cdn.origene.com/chromatograms/mk6092_g08.zip)



[View online >](#)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000269

**ORF Size:** 456 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\\_000269.3](#)

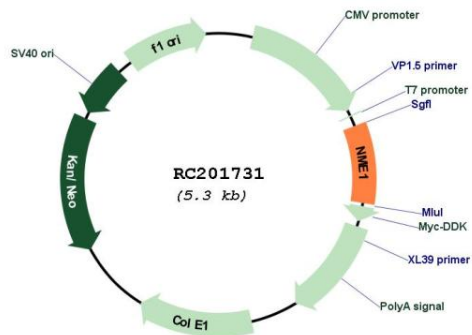
**RefSeq Size:** 811 bp

**RefSeq ORF:** 459 bp

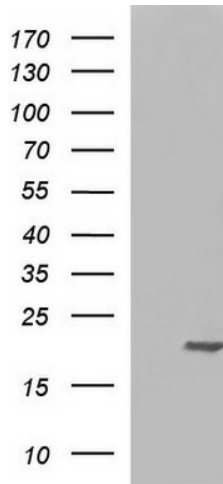
**Locus ID:** 4830  
**UniProt ID:** [P15531](#)  
**Cytogenetics:** 17q21.33  
**Domains:** NDK  
**Protein Families:** Druggable Genome, Stem cell - Pluripotency  
**Protein Pathways:** Metabolic pathways, Purine metabolism, Pyrimidine metabolism  
**MW:** 17.1 kDa

**Gene Summary:** This gene (NME1) was identified because of its reduced mRNA transcript levels in highly metastatic cells. Nucleoside diphosphate kinase (NDK) exists as a hexamer composed of 'A' (encoded by this gene) and 'B' (encoded by NME2) isoforms. Mutations in this gene have been identified in aggressive neuroblastomas. Two transcript variants encoding different isoforms have been found for this gene. Co-transcription of this gene and the neighboring downstream gene (NME2) generates naturally-occurring transcripts (NME1-NME2), which encodes a fusion protein comprised of sequence sharing identity with each individual gene product. [provided by RefSeq, Jul 2008]

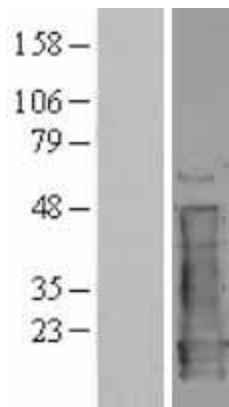
### Product images:



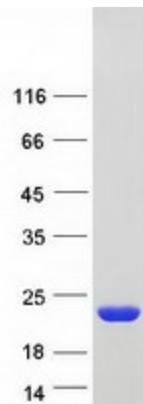
Circular map for RC201731



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NME1 (Cat# RC201731, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-NME1 (Cat# [TA590015]). Positive lysates [LY400102] (100ug) and [LC400102] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400102]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201731 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NME1 protein (Cat# [TP301731]). The protein was produced from HEK293T cells transfected with NME1 cDNA clone (Cat# RC201731) using MegaTran 2.0 (Cat# [TT210002]).