

Product datasheet for **RC220517**

NM23A (NME1) (NM_198175) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: NM23A (NME1) (NM_198175) 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: >RC220517 representing NM_198175
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGTGCTACTGTCTACTTTAGGGATCGTCTTTCAAGGCGAGGGGCTCCTATCTCAAGCTGTGATACAG
 GAACCATGGCCAACTGTGAGCGTACCTTCATTGCGATCAAACAGATGGGGTCCAGCGGGGTCTTGTTGGG
 AGAGATTATCAAGCGTTTTGAGCAGAAAGGATCCGCCTTGTTGGTCTGAAATTCATGCAAGCTTCCGAA
 GATCTTCTCAAGGAACACTACGTTGACCTGAAGACCGTCCATTCTTGCCGGCCTGGTGAATATACATGC
 ACTCAGGGCCGGTAGTTGCCATGGTCTGGGAGGGGCTGAATGTGGTGAAGACGGGCCGAGTCATGCTCGG
 GGAGACCAACCCTGCAGACTCCAAGCCTGGGACCATCCGTGGAGACTTCTGCATACAAGTTGGCAGGAAC
 ATTATACATGGCAGTGATTCTGTGGAGAGTGCAGAGAAGGAGATCGGCTTGTTGGTTTACCCTGAGGAAC
 TGGTAGATTACACGAGCTGTGCTCAGAACTGGATCTATGAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC220517 representing NM_198175
 Red=Cloning site Green=Tags(s)
 MVLLSTLGIVFQGEPPISSCDTGTMANCERTFIAIKPDGVQRGLVGEIIKRFEQKGFRLVGLKFMQASE
 DLLKEHYVDLDRPFFAGLVKYMHSPPVAMVWEGLNVVKTGRVMLGETNPADSKPGTIRGDFCIQVGRN
 IIHGSDSVESAKEIGLWFHPEELVDYTSQAQNIWE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6498_d02.zip



[View online »](#)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_198175

ORF Size: 531 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_198175.1](#), [NP_937818.1](#)

RefSeq Size: 1031 bp

RefSeq ORF: 534 bp

Locus ID: 4830

UniProt ID: [P15531](#)

Cytogenetics: 17q21.33

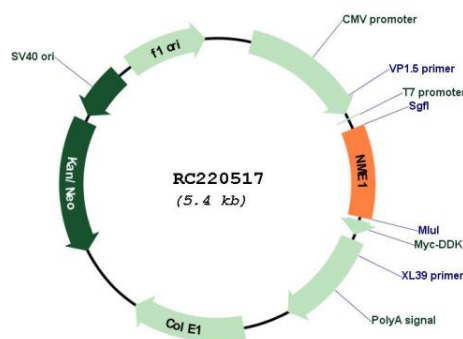
Protein Families: Druggable Genome, Stem cell - Pluripotency

Protein Pathways: Metabolic pathways, Purine metabolism, Pyrimidine metabolism

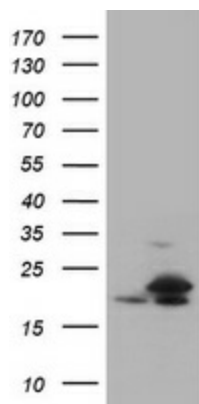
MW: 19.5 kDa

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]

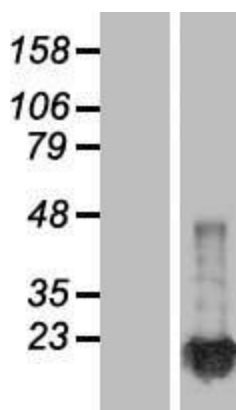
Product images:



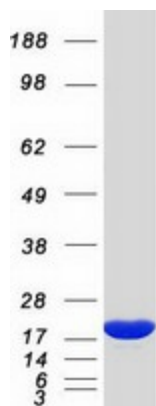
Circular map for RC220517



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NME1 (Cat# RC220517, 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# [TA801245]). Positive lysates [LY404982] (100ug) and [LC404982] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY404982]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220517 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NME1 protein (Cat# [TP320517]). The protein was produced from HEK293T cells transfected with NME1 cDNA clone (Cat# RC220517) using MegaTran 2.0 (Cat# [TT210002]).