

NME1 Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO1404a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	P15531
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	4B2
Isotype	IgG1
Calculated MW	17149
Description	non-metastatic cells 1,protein,with a nm23 nucleoside diphosphate kinase gene family,involved in the phosphorylation of nucleoside diphosphates,with a reduced expression in tumor progression to the metastatic phenotype,mutated in aggressive neuroblastoma,expressed in lung carcinoma cell lines not in normal lung,pyrimidine biosynthetic pathway. Involved in cell proliferation, differentiation and development, signal transduction, G protein-coupled receptor endocytosis, and gene expression. Required for neural development including neural patterning and cell fate determination. Has tumor metastasis-suppressive capacity.Tissue specificity: Isoform 1 is expressed in heart, brain, placenta, lung, liver, skeletal muscle, pancreas, spleen and thymus. Expressed in lung carcinoma cell lines but not in normal lung tissues. Isoform 2 is ubiquitously expressed and its expression is also related to tumor differentiation. Isoform 3 is ubiquitously expressed.
Immunogen	Purified recombinant fragment of human NME1 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	4830
Other Names	Nucleoside diphosphate kinase A, NDK A, NDP kinase A, 2.7.4.6, Granzyme A-activated DNase, GAAD, Metastasis inhibition factor nm23, NM23-H1, Tumor metastatic process-associated protein, NME1, NDPKA, NM23
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 ICC~~N/A E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NME1 Antibody is for research use only and not for use in diagnostic or

therapeutic procedures.

Protein Information

Name	NME1
Synonyms	NDPKA, NM23
Function	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. Possesses nucleoside-diphosphate kinase, serine/threonine-specific protein kinase, geranyl and farnesyl pyrophosphate kinase, histidine protein kinase and 3'-5' exonuclease activities. Involved in cell proliferation, differentiation and development, signal transduction, G protein-coupled receptor endocytosis, and gene expression. Required for neural development including neural patterning and cell fate determination. During GZMA- mediated cell death, works in concert with TREX1. NME1 nicks one strand of DNA and TREX1 removes bases from the free 3' end to enhance DNA damage and prevent DNA end reannealing and rapid repair.
Cellular Location	Cytoplasm. Nucleus. Note=Cell-cycle dependent nuclear localization which can be induced by interaction with Epstein-barr viral proteins or by degradation of the SET complex by GzmA
Tissue Location	Isoform 1 is expressed in heart, brain, placenta, lung, liver, skeletal muscle, pancreas, spleen and thymus. Expressed in lung carcinoma cell lines but not in normal lung tissues. Isoform 2 is ubiquitously expressed and its expression is also related to tumor differentiation.

References

1. J Cell Biochem. 2009 Mar 1;106(4):666-72. 2. FEBS Lett. 2009 Sep 3;583(17):2789-92. 3. PLoS One. 2009 Nov 23;4(11):e7949.

Images

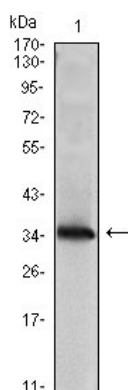


Figure 1: Western blot analysis using NME1 mAb against NME1(AA: 27-177)-hIgGFc transfected HEK293 cell lysate.

Figure 2: Immunohistochemical analysis of paraffin-embedded human Placenta tissues using anti-NME1 mouse mAb

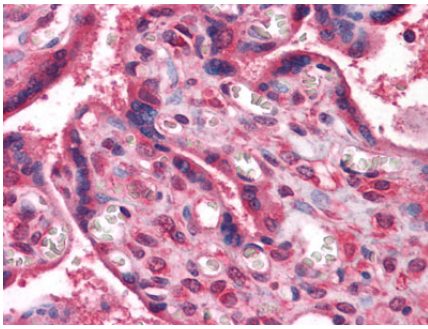


Figure 3: Immunofluorescence analysis of Hela cells using NME1 mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

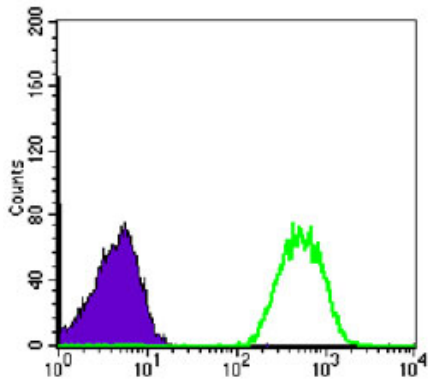
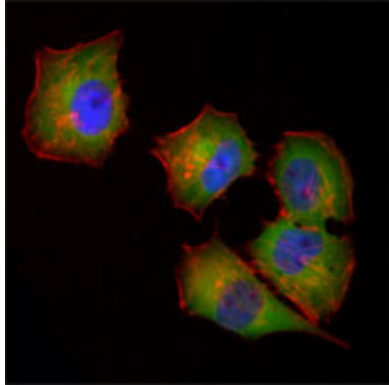


Figure 4: Flow cytometric analysis of Jurkat cells using NME1 mouse mAb (green) and negative control (purple).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.