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NME1 Antibody
Mouse Monoclonal Antibody (Mab)
Catalog # AM2209b

Specification

NME1 Antibody - Product Information

Application	**IHC-P, WB,E**
Primary Accession	P15531
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG2a**

NME1 Antibody - Additional Information

Gene ID 4830

Other Names
Nucleoside diphosphate kinase A, NDK A, NDP kinase A, Granzyme A-activated DNase, GAAD, Metastasis inhibition factor nm23, NM23-H1, Tumor metastatic process-associated protein, NME1, NDPKA, NM23

Target/Specificity
Purified His-tagged NME1 protein was used to produced this monoclonal antibody.

Dilution
IHC-P~~1:25
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. 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.

NME1 Antibody - 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

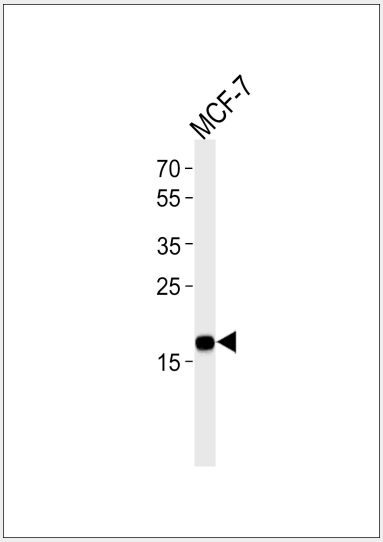
Tissue Location
Isoform 1 is expressed in heart, brain, placenta, lung, liver, skeletal muscle, pancreas, spleen and thymus. Expressed in lung carcinoma cell lines but not in normal lung tissues. Isoform 2 is ubiquitously expressed and its expression is also related to tumor differentiation.

NME1 Antibody - Protocols

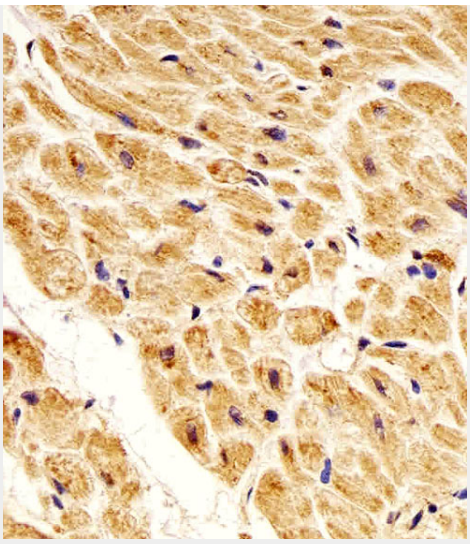
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

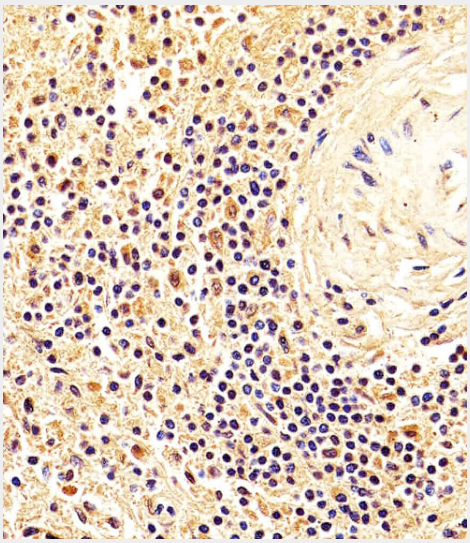
NME1 Antibody - Images



NME1 Antibody(Cat. #AM2209b) western blot analysis in MCF-7 cell line lysates (35µg/lane).This demonstrates the NME1 antibody detected the NME1 protein (arrow).



Immunohistochemical analysis of paraffin-embedded H. heart section using NME1 Antibody(Cat#AM2209B). AM2209B was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



Immunohistochemical analysis of paraffin-embedded H. spleen section using NME1 Antibody(Cat#AM2209B). AM2209B was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.

NME1 Antibody - Background

Major role in the synthesis of nucleoside triphosphates other than ATP. 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.

NME1 Antibody - References

Rosengard A.M., et al. Nature 342:177-180(1989).
Gilles A.-M., et al. J. Biol. Chem. 266:8784-8789(1991).
Wang L., et al. Cancer Res. 53:717-720(1993).

Dooley S., et al. Hum. Genet. 93:63-66(1994).
Ni X., et al. J. Hum. Genet. 48:96-100(2003).

NME1 Antibody - Citations

- Purine metabolism gene deregulation in Parkinson\'s disease.