

**NME1 Antibody**  
**Mouse Monoclonal Antibody (Mab)**  
**Catalog # AW5193****Specification**

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**NME1 Antibody - Product Information**

Application	IHC-P, WB,E
Primary Accession	<a href="#">P15531</a>
Reactivity	Human, Rat
Predicted	Mouse
Host	Mouse
Clonality	Monoclonal
Calculated MW	H=17;M=17;Rat=17 KDa
Isotype	IgG2a
Antigen Source	Human

**NME1 Antibody - Additional Information****Gene ID** 4830**Antigen Region**  
1-132**Other Names**

NME1;NDPKA; NM23; Nucleoside diphosphate kinase A; Nucleoside diphosphate kinase A;  
Granzyme A-activated DNase; Nucleoside diphosphate kinase A; Metastasis inhibition factor nm23;  
Nucleoside diphosphate kinase A; Tumor metastatic process-associated protein; Nucleoside  
diphosphate kinase A; nm23-H1

**Dilution**

IHC-P~~1:25  
WB~~1:1000

**Target/Specificity**

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

**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

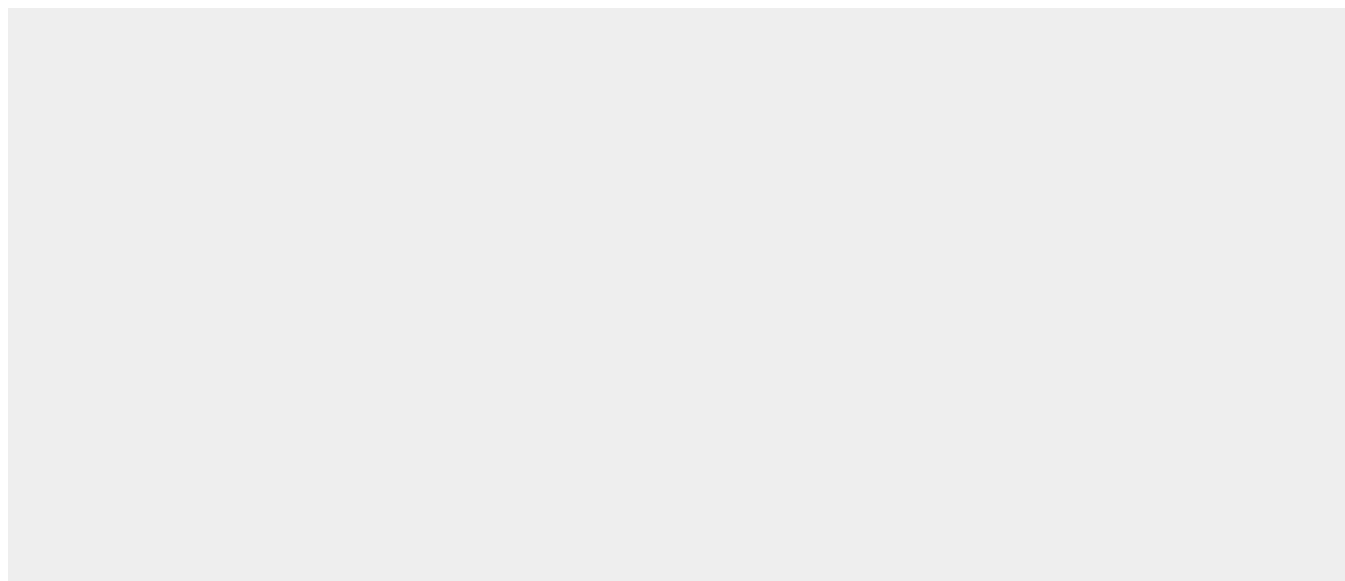
**Tissue Location**

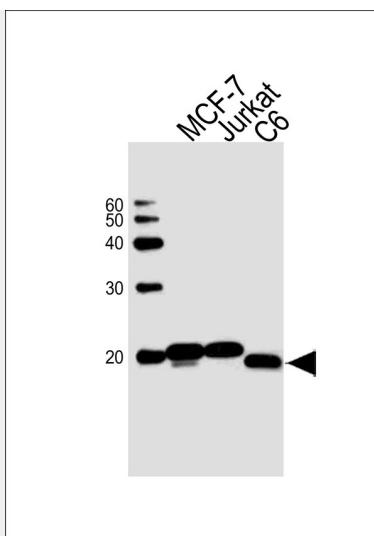
Isoform 1 is expressed in heart, brain, placenta, lung, liver, skeletal muscle, pancreas, spleen and thymus. Expressed in lung carcinoma cell lines but not in normal lung tissues. Isoform 2 is ubiquitously expressed and its expression is also related to tumor differentiation.

**NME1 Antibody - Protocols**

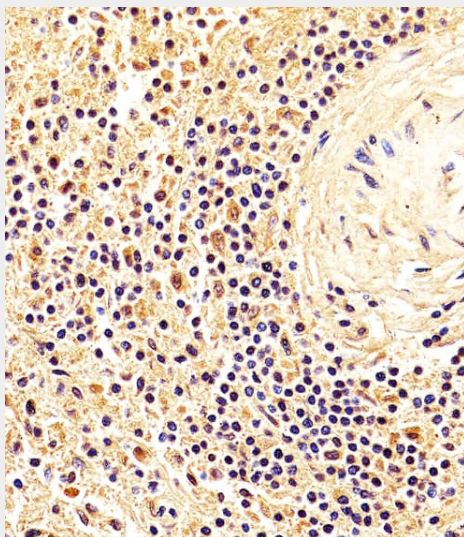
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

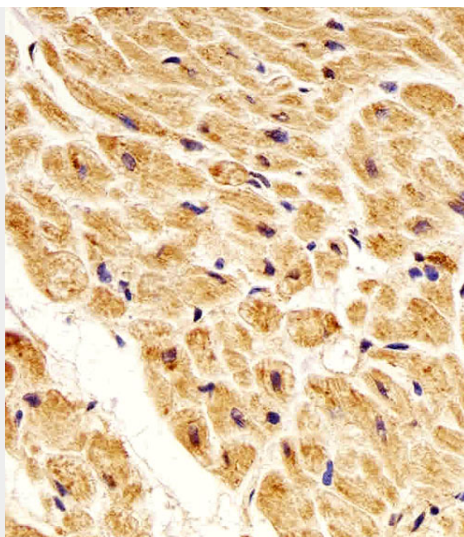
**NME1 Antibody - Images**



Western blot analysis of lysates from MCF-7, Jurkat, rat C6 cell line (from left to right), using NME1 Antibody (Cat. #AW5193). AW5193 was diluted at 1:1000 at each lane. A goat anti-mouse IgG H&L (HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20 µg per lane.



Immunohistochemical analysis of paraffin-embedded H. spleen section using NME1 Antibody (Cat#AW5193). AW5193 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. heart section using NME1 Antibody(Cat#AW5193). AW5193 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).