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NME1 Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM2209b

Product Information

Application	WB, IHC-P, E
Primary Accession	P15531
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Clone Names	1172CT2.4.1.1
Calculated MW	17149

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	WB~~1:1000 IHC-P~~1:100~500 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.

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.

Background

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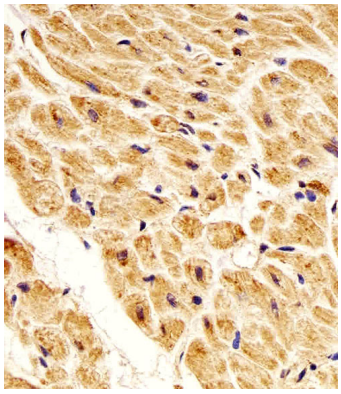
References

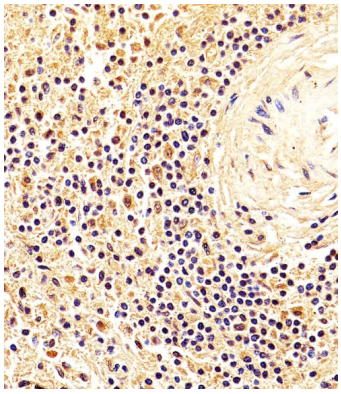
Rosengard A.M., et al. Nature 342:177-180(1989).
Gilles A.-M., et al. J. Biol. Chem. 266:8784-8789(1991).
Wang L., et al. Cancer Res. 53:717-720(1993).
Dooley S., et al. Hum. Genet. 93:63-66(1994).
Ni X., et al. J. Hum. Genet. 48:96-100(2003).

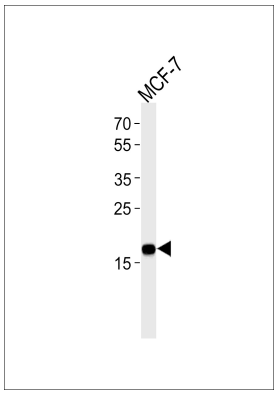
Images



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

Citations

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

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