

## NM23-H1 Monoclonal Antibody

<b>Catalog No :</b>	YM0478
<b>Reactivity :</b>	Human
<b>Applications :</b>	WB;IHC;IF;FCM;ELISA
<b>Target :</b>	NM23-H1
<b>Fields :</b>	>>Purine metabolism;>>Pyrimidine metabolism;>>Drug metabolism - other enzymes;>>Metabolic pathways;>>Nucleotide metabolism;>>Biosynthesis of cofactors
<b>Gene Name :</b>	NME1
<b>Protein Name :</b>	Nucleoside diphosphate kinase A
<b>Human Gene Id :</b>	4830
<b>Human Swiss Prot No :</b>	P15531
<b>Mouse Swiss Prot No :</b>	P15532
<b>Immunogen :</b>	Purified recombinant fragment of human NM23-H1 expressed in E. Coli.
<b>Specificity :</b>	NM23-H1 Monoclonal Antibody detects endogenous levels of NM23-H1 protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Monoclonal, Mouse
<b>Dilution :</b>	WB 1:500 - 1:2000. IHC 1:200 - 1:1000. IF 1:200 - 1:1000. Flow cytometry: 1:200 - 1:400. ELISA: 1:10000. Not yet tested in other applications.
<b>Purification :</b>	Affinity purification
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Molecularweight :</b>	17kD

**Cell Pathway :** Purine metabolism;Pyrimidine metabolism;

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**P 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.

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**Background :** 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 &apos;A&apos;; (encoded by this gene) and &apos;B&apos;; (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],

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**Function :** catalytic activity:ATP + nucleoside diphosphate = ADP + nucleoside triphosphate.,cofactor:Magnesium.,disease:This protein is found in reduced amount in tumor cells of high metastatic potential.,disease:This protein is found in reduced amount in tumor cells of high metastatic potential. Somatic mutations of NME1 are found in neuroblastoma. Increased NME1 in neuroblastoma is correlated with features of the disease that are associated with aggressive tumors. May therefore have distinct if not opposite roles in different tumors.,enzyme regulation:Autophosphorylation at His-118 increases serine/threonine protein kinase activity of the enzyme. Interaction with the SET complex inhibits exonuclease activity.,function:Major role in the synthesis of nucleoside triphosphates other than ATP. Negatively regulates Rho activity by interacting with AKAP13/LBC. Acts as a transcriptional activator of the

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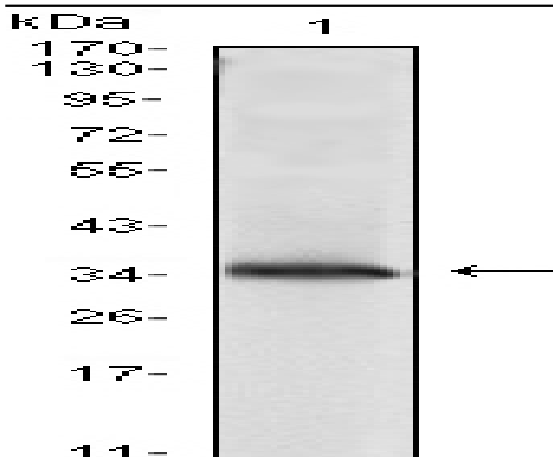
**Subcellular Location :** Cytoplasm . Nucleus . Cell-cycle dependent nuclear localization which can be induced by interaction with Epstein-barr viral proteins or by degradation of the SET complex by GzmA.

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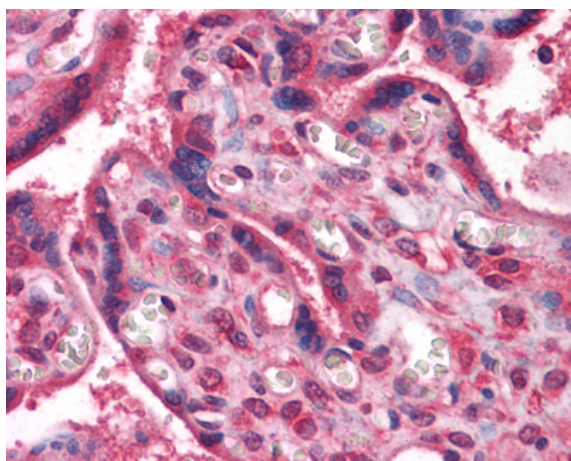
**Expression :** Isoform 1 is expressed in heart, brain, placenta, lung, liver, skeletal muscle, pancreas, spleen and thymus. Expressed in lung carcinoma cell lines but not in normal lung tissues. Isoform 2 is ubiquitously expressed and its expression is also related to tumor differentiation.

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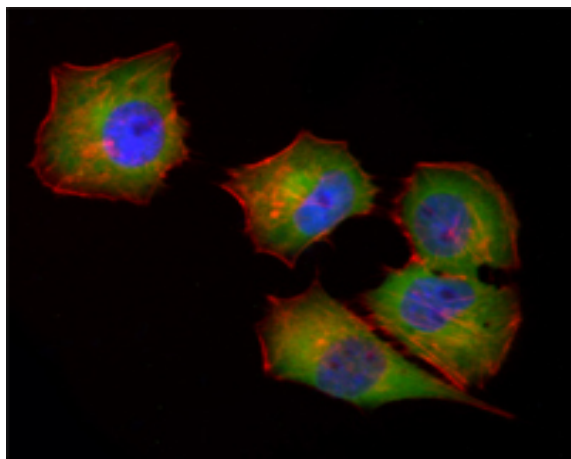
## Products Images



Western Blot analysis using NM23-H1 Monoclonal Antibody against NME1-hlgGfc transfected HEK293 cell lysate.



Immunohistochemistry analysis of paraffin-embedded human Placenta tissues with AEC staining using NM23-H1 Monoclonal Antibody.



Immunofluorescence analysis of HeLa cells using NM23-H1 Monoclonal Antibody (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

Flow cytometric analysis of Jurkat cells using NM23-H1 Monoclonal Antibody (green) and negative control (purple).

