

Anti-NM23A Antibody
Catalog # ABO12767**Specification****Anti-NM23A Antibody - Product Information**

Application	WB
Primary Accession	P15531
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Nucleoside diphosphate kinase A(NME1) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-NM23A Antibody - 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

Calculated MW

17149 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

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.

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. .

Protein Name

Nucleoside diphosphate kinase A

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human NM23A (26-58aa KRFEQKGFRLVGLKFMQASEDLLKEHYVDLKDR), different from the related mouse and rat sequences by two amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-NM23A 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.

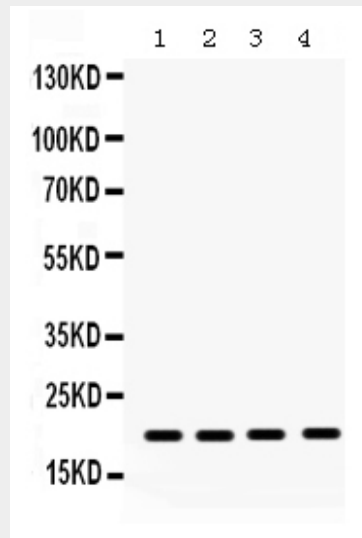
Anti-NM23A Antibody - Protocols

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](#)

Anti-NM23A Antibody - Images



Anti- NM23A antibody, ABO12767, Western blottingAll lanes: Anti NM23A (ABO12767) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Rat Liver Tissue Lysate at 50ugLane 3: HELA Whole Cell Lysate at 40ugLane 4: NIH3T3 Whole Cell Lysate at 40ugPredicted bind size: 20KDObserved bind size: 20KD

Anti-NM23A Antibody - Background

NME1(NME/NM23 nucleoside diphosphate kinase 1), also called non-metastatic cells 1, protein (NM23A) expressed in, NM23, NM23-H1, NDPKA, GAAD or AWD, is an enzyme that in humans is encoded by the NME1 gene. The promoters of the mouse and human NME1 genes, like those of other NME genes, contain several binding sites for AP2, NF1, Sp1, LEF1, and response elements to glucocorticoid receptors. The NME1 gene is mapped on 17q21.33. Immunofluorescence microscopy demonstrated colocalization of NME1 in nuclei of B cells expressing EBNA3C. Expression of EBNA3C reversed the ability of NME1 to inhibit migration of BL and breast carcinoma cells. NM23H1 bound SET and was released from inhibition by GZMA cleavage of SET. After GZMA loading or cytotoxic T lymphocyte attack, SET and NM23H1 translocated to the nucleus and SET was degraded, allowing NM23H1 to nick chromosomal DNA. Using a Drosophila model system, Dammai et al. (2003) showed that the Drosophila NME1 homolog, awd, regulates trachea cell motility by modulating FGFR levels through a dynamin -mediated pathway.