10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# Anti-NM23A Antibody
**Catalog # ABO11137**

## Specification

### Anti-NM23A Antibody - Product Information

| | |
|---|---|
| Application | **WB, IHC-P, ICC** |
| 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, IHC-P, ICC 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**
Immunocytochemistry , 0.5-1 µg/ml, Human, -<br>Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse<br>

**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(NDK A)

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

**Immunogen**
A synthetic peptide corresponding to a sequence at the C-terminus of human NM23A(137-152aa EELVDYTSCAQNWIYE), different from the related mouse sequence by two amino acids and from rat sequence by one amino acid.

**Purification**
Immunogen affinity purified.

**Cross Reactivity**
No cross reactivity with other proteins

| | |
|---|---|
| Storage | **At -20˚C for one year. After r˚Constitution, 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.** |

**Sequence Similarities**
Belongs to the NDK family.

## 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

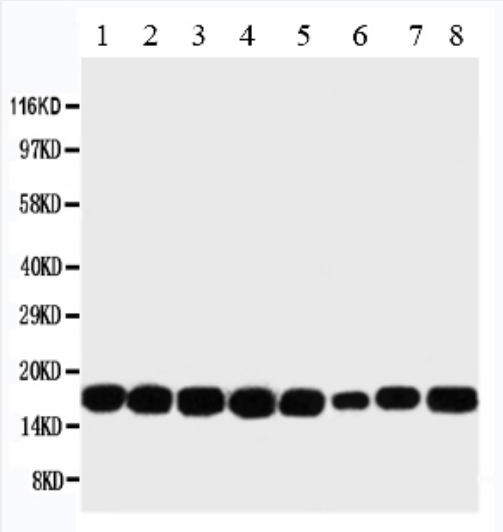
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides

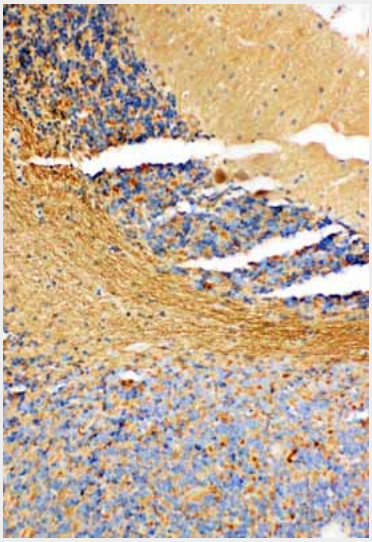
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

**Anti-NM23A Antibody - Images**

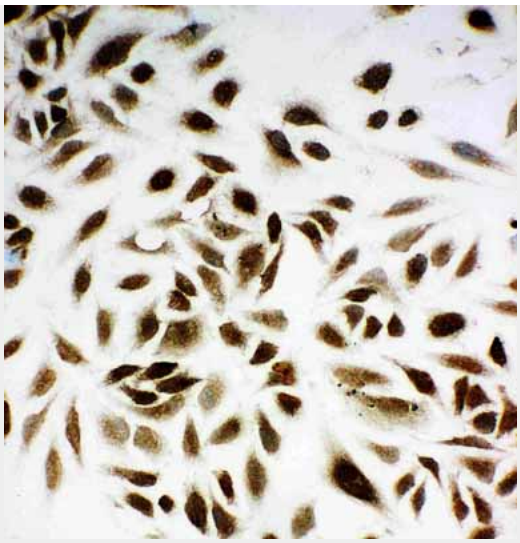



Anti-NM23A antibody, ABO11137, Western blottingLane 1: Rat Heart Tissue LysateLane 2: Rat Brain Tissue LysateLane 3: Rat Liver Tissue LysateLane 4: Rat Skeletal Muscle Tissue LysateLane 5: PANC Cell LysateLane 6: HELA Cell LysateLane 7: SKOV Cell LysateLane 8: COLO320 Cell Lysate



Anti-NM23A antibody, ABO11137, IHC(P)IHC(P): Rat Cerebellum Tissue

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Anti-NM23A antibody, ABO11137, ICCICC: HELA Cell

**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 anÂ enzymeÂ that in humans is encoded by theÂ NME1Â gene. The promoters of the mouse and humanÂ NME1Â 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 ofÂ NME1Â in nuclei of B cells expressing EBNA3C. Expression of EBNA3C reversed the ability ofÂ NME1Â 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.Â Using a Drosophila model system,Â Dammai et al.(2003)Â showed that the DrosophilaÂ NME1Â homolog, awd, regulates trachea cell motility by modulating FGFR levels through a dynamin -mediated pathway.