

Anti-NME2 Antibody

Catalog # ABO11138

#### Specification

# Anti-NME2 Antibody - Product Information

ApplicationWB, IHC, ICCPrimary AccessionP22392HostRabbitReactivityHuman, Mouse, RatClonalityPolyclonalFormatLyophilizedDescriptionRabbit IgG polyclonal antibody for Nucleoside diphosphate kinase B(NME2) detection. Tested withWB, IHC-P, ICC in Human;Mouse;Rat.

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

## Anti-NME2 Antibody - Additional Information

Gene ID 4831;654364

**Other Names** Nucleoside diphosphate kinase B, NDK B, NDP kinase B, 2.7.4.6, C-myc purine-binding transcription factor PUF, Histidine protein kinase NDKB, 2.7.13.3, nm23-H2, NME2, NM23B

Calculated MW 17298 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 projection, lamellipodium. Cell projection, ruffle. Isoform 2 is mainly cytoplasmic and isoform 1 and isoform 2 are excluded from the nucleolus. Colocalizes with ITGB1 and ITGB1BP1 at the edge or peripheral ruffles and lamellipodia during the early stages of cell spreading on fibronectin or collagen but not on vitronectin or laminin substrates.

**Tissue Specificity** Ubiquitously expressed. .

Protein Name Nucleoside diphosphate kinase B(NDK B)

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 NME2(137-152aa EELVDYKSCAHDWVYE), different from the related mouse and rat sequences 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.

## Anti-NME2 Antibody - Protein Information

Name NME2

Synonyms NM23B

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 (By similarity). Negatively regulates Rho activity by interacting with AKAP13/LBC (PubMed:<a href="http://www.uniprot.org/citations/15249197" target=" blank">15249197</a>). Acts as a transcriptional activator of the MYC gene; binds DNA non-specifically (PubMed:<a href="http://www.uniprot.org/citations/19435876" target=" blank">19435876</a>, PubMed:<a href="http://www.uniprot.org/citations/8392752" target=" blank">8392752</a>). Binds to both single-stranded quanine- and cytosine-rich strands within the nuclease hypersensitive element (NHE) III(1) region of the MYC gene promoter. Does not bind to duplex NHE III(1) (PubMed:<a href="http://www.uniprot.org/citations/19435876" target=" blank">19435876</a>). Has G-quadruplex (G4) DNA-binding activity, which is independent of its nucleotide-binding and kinase activity. Binds both folded and unfolded G4 with similar low nanomolar affinities. Stabilizes folded G4s regardless of whether they are prefolded or not (PubMed:<a href="http://www.uniprot.org/citations/25679041" target=" blank">25679041</a>). Exhibits histidine protein kinase activity (PubMed:<a href="http://www.uniprot.org/citations/20946858" target=" blank">20946858</a>).

**Cellular Location** 

Cytoplasm. Cell projection, lamellipodium. Cell projection, ruffle. Note=Colocalizes with ITGB1 and ITGB1BP1 at the edge or peripheral ruffles and lamellipodia during the early stages of cell spreading on fibronectin or collagen but not on vitronectin or laminin substrates [Isoform 3]: Cytoplasm. Cytoplasm, perinuclear region. Nucleus

**Tissue Location** [Isoform 1]: Ubiquitously expressed.

## Anti-NME2 Antibody - Protocols

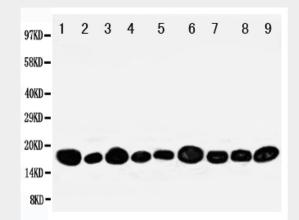
Provided below are standard protocols that you may find useful for product applications.

<u>Western Blot</u>

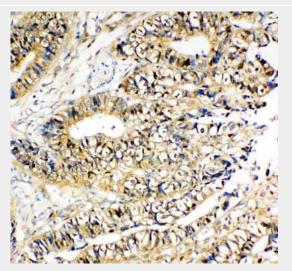


- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### Anti-NME2 Antibody - Images

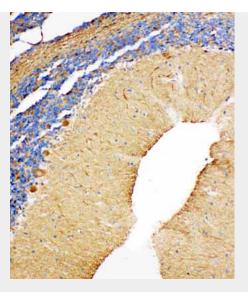


Anti-NME2 antibody, ABO11138, Western blottingLane 1: Rat Heart Tissue LysateLane 2: Rat Brain Tissue LysateLane 3: Rat Liver Tissue LysateLane 4: Rat Skeletal Muscle Tissue LysateLane 5: PANC Cell LysateLane 6: HELA Cell LysateLane 7: SMMC Cell LysateLane 8: U87 Cell LysateLane 9: COLO320 Cell Lysate



Anti-NME2 antibody, ABO11138, IHC(P)IHC(P): Human Intestinal Cancer Tissue





Anti-NME2 antibody, ABO11138, IHC(P)IHC(P): Rat Cerebellum Tissue



Anti-NME2 antibody, ABO11138, ICCICC: HELA Cell

## Anti-NME2 Antibody - Background

NME2(NME/NM23 nucleoside diphosphate kinase 2) also called non-metastatic cells 2, protein(NM23B) expressed in, NM23-H2, NM23B or NDPKB, is identical to the beta subunit of human erythrocyte NDP kinase. Little to no expression was detected in other mouse tissues examined. Using Northern blot analysis, Masse et al.(2002) detected high expression of mouse Nme2, which they called nm23-M2, in heart, liver, and kidney, with intermediate expression in skeletal muscle. In situ hybridization of 15-day postcoitum mouse embryos showed ubiquitous Nme2 expression. The mouse and human NME2Â genes contain 5 exons and span about 6.0 kb. The NME2 gene is mapped on 17q21.33. Srivastava et al.(2006)Â concluded that histidine phosphorylation regulates KCa3.1 channel activity and that NDPBK is critical to the channel activity and the activation of CD4 T cells.