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Anti-NME2 Antibody
Catalog # ABO11138

Specification

Anti-NME2 Antibody - Product Information

Application	**WB, IHC-P, ICC**
Primary Accession	P22392
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Nucleoside diphosphate kinase B(NME2) 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-NME2 Antibody - Additional Information

Gene ID 4831

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, -
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

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:15249197). Acts as a transcriptional activator of the MYC gene; binds DNA non-specifically (PubMed:19435876, PubMed:8392752). Binds to both single-stranded guanine- 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:19435876). 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:25679041). Exhibits histidine protein kinase activity (PubMed:20946858).

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.

- Western Blot

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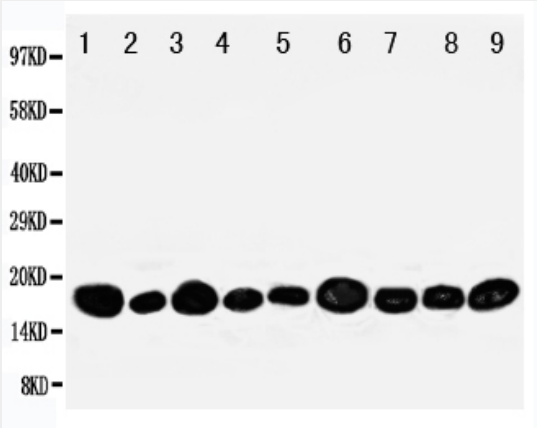
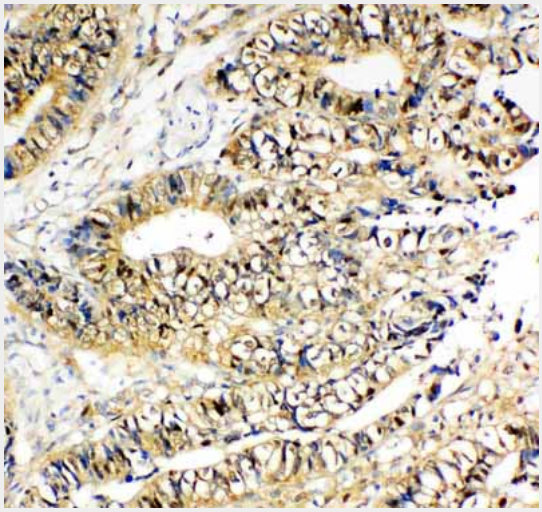
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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

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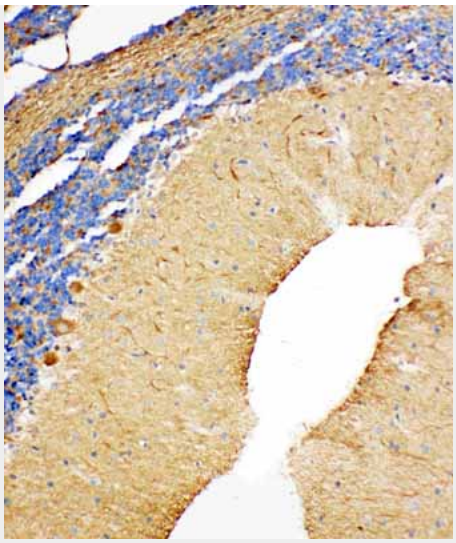

Anti-NME2 antibody, ABO11138, IHC(P)IHC(P): Rat Cerebellum Tissue

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,Â Masse et al.(2002)Â detected high expression of mouseÂ Nme2, which they called nm23-M2, in heart, liver, and kidney, with intermediate expression in skeletal muscle.Â In situ hybridization of 15-day postcoitum mouse embryos showed ubiquitousÂ Nme2Â expression. The mouse and humanÂ 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.