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NME2 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO2003a

Product Information

Application	WB, IHC, E
Primary Accession	P22392
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	4G7A8
Isotype	IgG1
Calculated MW	17298
Description	Nucleoside diphosphate kinase (NDK) exists as a hexamer composed of 'A' (encoded by NME1) and 'B' (encoded by this gene) isoforms. Multiple alternatively spliced transcript variants have been found for this gene. Read-through transcription from the neighboring upstream gene (NME1) generates naturally-occurring transcripts (NME1-NME2) that encode a fusion protein comprised of sequence sharing identity with each individual gene product.
Immunogen	Purified recombinant fragment of human NME2 (AA: FULL(1-152)) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide.

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
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NME2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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.

References

1. Carcinogenesis. 2011 Aug;32(8):1133-42. 2. Cancer Lett. 2009 Mar 18;275(2):221-6.

Images