

Rabbit NME1 Polyclonal Antibody | anti-NME1 antibody

NME1 Antibody

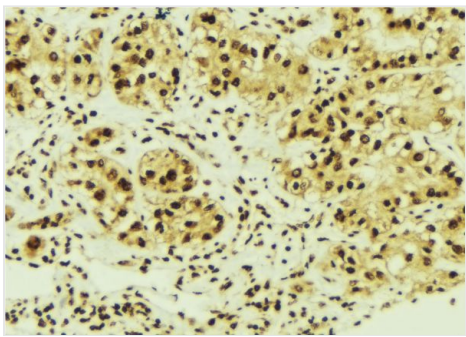
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA325862	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

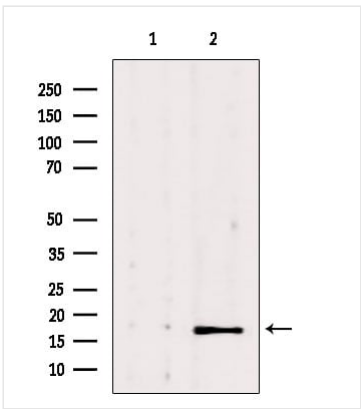
NME1; Polyclonal Antibody; NME1 Antibody; AWD; drosophila; homolog of; GAAD; Granzyme A activated DNase; Granzyme A-activated DNase; GZMA activated DNase; Metastasis inhibition factor NM23; NB; NBS; NDK A; NDKA; NDKA_HUMAN; NDP kinase A; NDPK-A; NDPKA; NM23; NM23 long variant; included; nm23-H1; NM23-M1; NM23H1B; NME/NM23 nucleoside diphosphate kinase 1; Nme1; NME1-NME2 spliced read-through transcript; Non-metastatic cells 1; protein (NM23A) expressed in; Nonmetastatic cells 1; protein expressed in; Nonmetastatic protein 23; homolog 1; Nucleoside diphosphate kinase A; Tumor metastatic process-associated protein; anti-NME1 antibody

PRODUCT SPECIFICATIONS

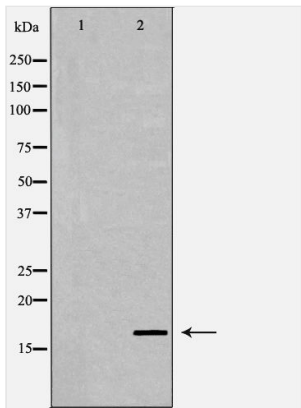
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	NME1 antibody detects endogenous levels of total NME1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	152
Applicable Applications for anti-NME1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	C term-peptide of human NME1
Subcellular Location	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.
Predicted Cross Reactivity	Pig, Bovine, Rabbit, Dog
Similarity	Pig (88%), Bovine (88%), Rabbit (88%), Dog (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



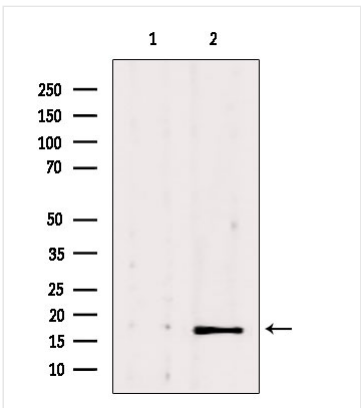
IHC (Immunohistochemistry)
AAA325862 at 1/100 staining Human breast cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of extracts from HeLa, using NME1 Antibody. Lane 1 was treated with the blocking peptide.



WB (Western Blot)
Western blot analysis of extracts of 3T3, using NME1/NDKA antibody. The lane on the left is treated with the antigen-specific peptide.



WB (Western Blot)
Western blot analysis of extracts from 293, using NME1 Antibody. Lane 1 was treated with the blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-NME1 antibody	Description: The NDK/NME/NM23 kinase family (encoded by the NME gene family) consists of at least eight distinct proteins that exhibit different cellular localization (1). Members of this group inhibit metastasis in a variety of tumor cell types (2). All NDK/NME/NM23 proteins possess nucleoside diphosphatase kinase (NDK) activity and catalyze the phosphorylation of nucleoside diphosphate to the corresponding nucleoside triphosphate to regulate a diverse array of cellular events (3). At least four classes of NDK biochemical activities have been described, including protein-protein interactions (4-6), regulation of GTP-binding protein function (7-9), DNA-associated activities (10, 11), and histidine-dependent protein phosphotransferase activity (12). NDK/NME proteins participate in the regulation of a broad spectrum of cellular responses, including development, differentiation, proliferation, endocytosis, and apoptosis (13). Because of its role in metastasis suppression and oncogenesis, NDKA (NME1/NM23-H1) has been widely studied (14). NDKA (NM23-H1) and NDKB (NM23-H2) are encoded by adjacent NME1 and NME2 genes and share 90% sequence identity. Two serine residues (Ser122 and Ser144) on NDKA/NM23-H1 can be phosphorylated by AMPKalpha1, but only phosphorylation at Ser122 determines whether NDKA channels ATP to AMPKalpha1. This regulates AMPKalpha1 activity towards ACC1, an important regulator of fatty acid metabolism (15). Mutation of NDKB/NM23-H2 at Ser122 (S122P) in melanoma cells results in altered phosphoryl transfer activity (16). 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. Subunit Structure: Hexamer of two different chains: A and B (A6, A5B, A4B2, A3B3, A2B4, AB5, B6). Interacts with PRUNE1. Component of the SET complex, composed of at least ANP32A, APEX1, HMGB2, NME1, SET and TREX1. Within this complex, interacts directly with SET. Also interacts with TREX1, but only following translocation to the nucleus. Similarity: Belongs to the NDK family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4557797
NCBI GeneID	4830
NCBI Accession #	NP_000260.1
NCBI GenBank Nucleotide #	NM_000269.2
UniProt Accession #	P15531; Q6FGK3; Q86XQ2; Q9UDJ6
Molecular Weight	Observed: 17 kDa Predicted: 18 kDa
NCBI Official Full Name	nucleoside diphosphate kinase A isoform b
NCBI Official Synonym Full Names	NME/NM23 nucleoside diphosphate kinase 1
NCBI Official Symbol	NME1
NCBI Official Synonym Symbols	NB; AWD; NBS; GAAD; NDKA; NM23; NDPKA; NDPK-A; NM23-H1
NCBI Protein Information	nucleoside diphosphate kinase A
UniProt Protein Name	Nucleoside diphosphate kinase A
UniProt Gene Name	NME1
UniProt Synonym Gene Names	NDPKA; NM23; NDK A; NDP kinase A; GAAD

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

