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NME7 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8084a

Specification

NME7 Antibody (N-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q9Y5B8
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**42492**
Antigen Region	**25-55**

NME7 Antibody (N-term) - Additional Information

Gene ID 29922

Other Names
Nucleoside diphosphate kinase 7, NDK 7, NDP kinase 7, nm23-H7, NME7

Target/Specificity
This NME7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 25-55 amino acids from the N-terminal region of human NME7.

Dilution
WB~~1:1000
IHC-P~~1:50~100

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
NME7 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

NME7 Antibody (N-term) - Protein Information

Name NME7 (HGNC:20461)

Function Possesses an intrinsic kinase activity (PubMed:24807905). Displays 3'-5' exonuclease activity with a preference for single- stranded DNA (PubMed:16313181). Does not seem to have

nucleoside diphosphate kinase activity (PubMed:16313181, PubMed:24807905). Microtubule inner protein (MIP) part of the dynein-decorated doublet microtubules (DMTs) in cilia axoneme, which is required for motile cilia beating (PubMed:36191189). Functional component of the gamma- tubulin ring complex, implicated in the regulation of the microtubule- nucleating activity of the gamma-tubulin ring complex in centrosomes, in a kinase activity-dependent manner (PubMed:24807905).

Cellular Location
Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Nucleus. Cytoplasm Cytoplasm, cytoskeleton, spindle Cytoplasm, cytoskeleton, cilium axoneme. Cytoplasm, cytoskeleton, flagellum axoneme {ECO:0000250|UniProtKB:Q5E9Y9}. Note=Localizes to centrosomes through its assembly into gamma-tubulin ring complex. The centrosomal content of NME7 varies during the cell cycle, being highest in mitosis and lowest in early G1.

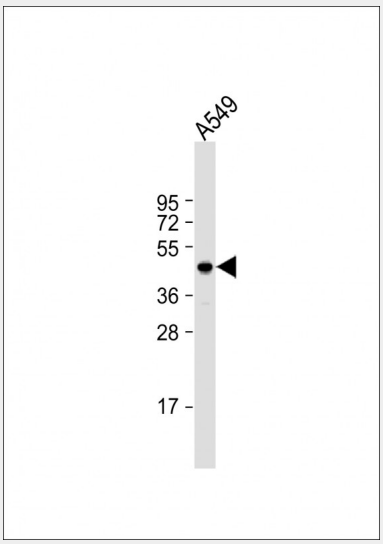
Tissue Location
Expressed in airway epithelial cells.

NME7 Antibody (N-term) - Protocols

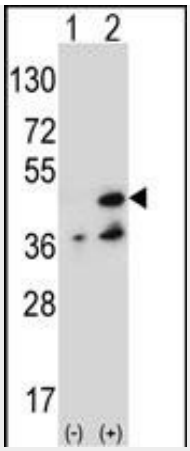
Provided below are standard protocols that you may find useful for product applications.

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

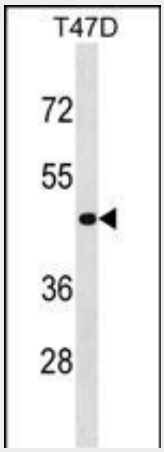
NME7 Antibody (N-term) - Images



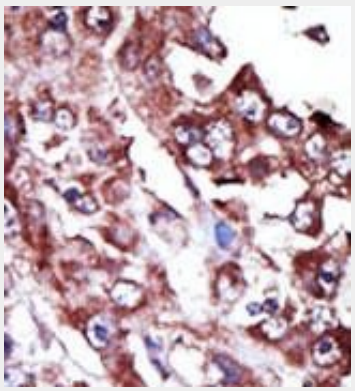
Anti-NME7 Antibody (V40) at 1:1000 dilution + A549 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 42 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of NME7 (arrow) using rabbit polyclonal NME7 Antibody (V40) (Cat. #AP8084a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the NME7 gene.



NME7 Antibody (V40) (Cat. #AP8084a) western blot analysis in T47D cell line lysates (35ug/lane).This demonstrates the NME7 antibody detected the NME7 protein (arrow).



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

NME7 Antibody (N-term) - Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic

mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The STE group (homologs of yeast Sterile 7, 11, 20 kinases) consists of 50 kinases related to the mitogen-activated protein kinase (MAPK) cascade families (Ste7/MAP2K, Ste11/MAP3K, and Ste20/MAP4K). MAP kinase cascades, consisting of a MAPK and one or more upstream regulatory kinases (MAPKKs) have been best characterized in the yeast pheromone response pathway. Pheromones bind to Ste cell surface receptors and activate yeast MAPK pathway.

NME7 Antibody (N-term) - References

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).