10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NME5 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8082c

Product Information

Application	WB, IHC-P, E
Primary Accession	P56597
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB3629
Calculated MW	24236
Antigen Region	98-123

Additional Information

Gene ID	8382
Other Names	Nucleoside diphosphate kinase homolog 5, NDK-H 5, NDP kinase homolog 5, Inhibitor of p53-induced apoptosis-beta, IPIA-beta, Testis-specific nm23 homolog, nm23-H5, NME5
Target/Specificity	This NME5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 98-123 amino acids from the Central region of human NME5.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	NME5 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NME5 (HGNC:7853)
Function	Functions as part of axonemal radial spoke complexes, which play an important part in the motility of sperm and cilia (By similarity). In vitro, does not display nucleoside diphosphate kinase (NDPK) activity (Probable)

	(PubMed:16313181, PubMed:9742940). Exhibits a 3'-5'-DNA exonuclease activity that removes single nucleotides from the 3' terminus of single-stranded DNA substrates and digests overhanging mismatched 3' termini from double-stranded DNA substrates, possibly participating in DNA nucleolytic processing (PubMed:16313181). Confers protection from cell death mediated by BAX and alters the cellular levels of several antioxidant enzymes, including GPX5 (By similarity). Might be involved in spermiogenesis by enhancing the ability of late-stage spermatids to eliminate reactive oxygen species (By similarity).
Cellular Location	Cell projection, cilium {ECO:0000250|UniProtKB:Q99MH5}. Cytoplasm, cytoskeleton, flagellum axoneme {ECO:0000250|UniProtKB:Q99MH5}
Tissue Location	Specifically expressed in testis germinal cells.

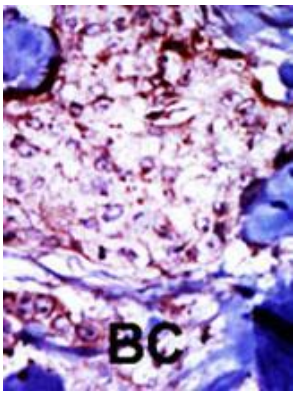
Background

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.

References

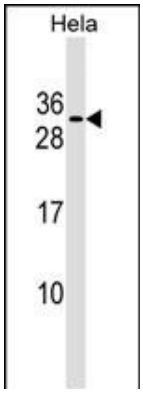
Munier, A., et al., Exp. Cell Res. 289(2):295-306 (2003).
Munier, A., et al., FEBS Lett. 434(3):289-294 (1998).

Images



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

NME5 Antibody (Center) (Cat. #AP8082c) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the NME5 antibody detected the NME5 protein (arrow).



Citations

- Nm23-H1 homologs suppress tumor cell motility and anchorage independent growth.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.