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NME1 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP14941b

Specification

NME1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession P15531

NME1 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 4830

Other Names
Nucleoside diphosphate kinase A, NDK A, NDP kinase A, Granzyme A-activated DNase, GAAD, Metastasis inhibition factor nm23, NM23-H1, Tumor metastatic process-associated protein, NME1, NDPKA, NM23

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

NME1 Antibody (C-term) Blocking Peptide - Protein Information

Name NME1

Synonyms NDPKA, NM23

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.

Cellular Location
Cytoplasm. Nucleus. Note=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 Location
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.

NME1 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

NME1 Antibody (C-term) Blocking Peptide - Images

NME1 Antibody (C-term) Blocking Peptide - Background

This gene (NME1) was identified because of its reducedmRNA transcript levels in highly metastatic cells. Nucleosidediphosphate kinase (NDK) exists as a hexamer composed of 'A'(encoded by this gene) and 'B' (encoded by NME2) isoforms.Mutations in this gene have been identified in aggressiveneuroblastomas. Two transcript variants encoding different isoformshave been found for this gene. Co-transcription of this gene andthe neighboring downstream gene (NME2) generatesnaturally-occurring transcripts (NME1-NME2), which encodes a fusionprotein comprised of sequence sharing identity with each individualgene product.

NME1 Antibody (C-term) Blocking Peptide - References

Boissan, M., et al. Cancer Res. 70(19):7710-7722(2010)Wang, P.H., et al. Gynecol. Oncol. 119(1):70-75(2010)Conery, A.R., et al. Proc. Natl. Acad. Sci. U.S.A. 107(35):15461-15466(2010)Wang, Z., et al. Med. Sci. Monit. 16 (8), CR357-CR364 (2010) :Li, Y., et al. Cancer Res. 70(14):5695-5705(2010)