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NME3 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7156a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q13232
Reactivity	Mouse, Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB5454
Calculated MW	19015
Antigen Region	51-81

Additional Information

Gene ID	4832
Other Names	Nucleoside diphosphate kinase 3, NDK 3, NDP kinase 3, DR-nm23, Nucleoside diphosphate kinase C, NDPKC, nm23-H3, NME3
Target/Specificity	This NME3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 51-81 amino acids from the Central region of human NME3.
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	NME3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NME3 (HGNC:7851)
Function	Catalyzes the phosphorylation of ribonucleosides and deoxyribonucleoside diphosphates, other than ATP, into the corresponding triphosphates with ATP as the major phosphate donor (PubMed:11277919, PubMed:30587587). The ATP gamma phosphate is transferred to the nucleoside diphosphate beta

	phosphate via a ping- pong mechanism, using a phosphorylated active-site intermediate. Through the catalyzed exchange of gamma-phosphate between di- and triphosphonucleosides participates in regulation of intracellular nucleotide homeostasis (PubMed:11277919, PubMed:30587587). Inhibits granulocyte differentiation (PubMed:7638209). May be required for ciliary function during renal development (By similarity).
Cellular Location	Mitochondrion outer membrane; Peripheral membrane protein. Cytoplasm Cytoplasm, cytoskeleton, cilium basal body {ECO:0000250|UniProtKB:Q9WV85}

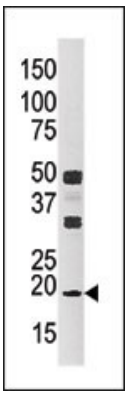
Background

NME3 mRNA is preferentially expressed at early stages of myeloid differentiation of highly purified CD34(+) cells. Its constitutive expression in a myeloid precursor line, which is growth-factor dependent for both proliferation and differentiation, results in inhibition of granulocytic differentiation induced by granulocyte colony-stimulating factor and causes apoptotic cell death. These results appear consistent with a role for the NME3 gene in normal hematopoiesis and raise the possibility that its overexpression contributes to differentiation arrest, a feature of blastic transformation in chronic myelogenous leukemia.

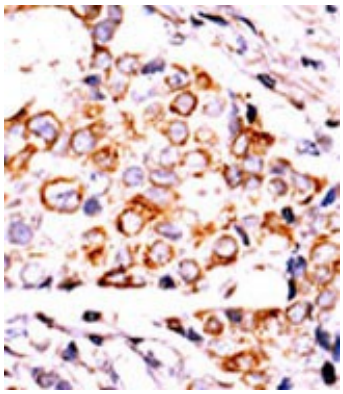
References

Negroni, A., et al., Cell Death Differ. 7(9):843-850 (2000).
Martinez, R., et al., Cancer Res. 57(6):1180-1187 (1997).
Venturelli, D., et al., Proc. Natl. Acad. Sci. U.S.A. 92(16):7435-7439 (1995).

Images



Western blot analysis of anti-NME3 Pab (Cat. #AP7156a) in CEM cell line tissue lysate (35ug/lane).NME3(arrow) was detected using the purified Pab.



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.