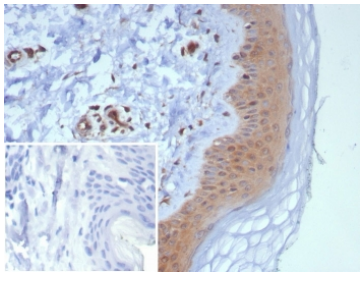
NME2 Antibody / Nucleoside diphosphate kinase B / NKDB [clone NME2/6433] (V4517)

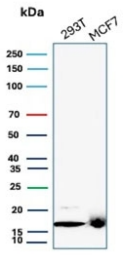
Catalog No.	Formulation	Size
V4517-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4517-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4517SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

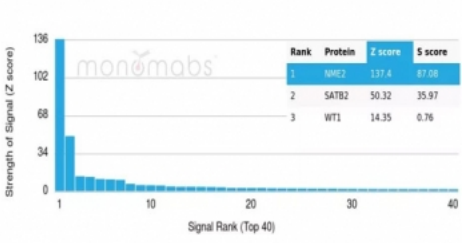
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2, kappa
Clone Name	NME2/6433
Purity	Protein A/G affinity
UniProt	P22392
Localization	Cytoplasm, Nucleus
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This NME2 antibody is available for research use only.



IHC analysis of NME2 / Nucleoside diphosphate kinase B antibody in human skin tissue. Formalin-fixed, paraffin-embedded human skin shows cytoplasmic HRP-DAB brown chromogenic staining predominantly within epidermal keratinocytes, with weaker staining in the dermal compartment. Clone NME2/6433 demonstrates specific signal following heat-induced epitope retrieval in pH 9 10mM Tris with 1mM EDTA for 20 min. The inset negative control using PBS instead of primary antibody shows no specific staining.



Western blot testing of human 293T and MCF-7 cell lysate with NME2 antibody (clone NME2/6433). Predicted molecular weight ~17 kDa.



Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins using NME2 antibody (clone NME2/6433). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a mAb to its intended target. A mAb is considered to specific to its intended target, if the mAb has an S-score of at least 2.5. For example, if a mAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that mAb to protein X is equal to 29.

Description

NME2 antibody recognizes Nucleoside diphosphate kinase B, a highly conserved phosphotransfer enzyme encoded by the human NME2 gene that plays a central role in intracellular nucleotide homeostasis. NME2 antibody detects a broadly expressed cytoplasmic protein responsible for catalyzing the reversible transfer of terminal phosphates from nucleoside triphosphates to nucleoside diphosphates, thereby sustaining balanced pools of ATP, GTP, CTP, and UTP required for DNA replication, RNA transcription, and signal transduction. NME2 may also localize to the nucleus, reflecting additional regulatory functions beyond its metabolic activity.

NME2 antibody, also referred to as NDPK-B antibody and nm23-H2 antibody in the literature, targets a member of the NME gene family. The protein forms hexameric complexes and contains a conserved histidine residue within its catalytic domain that undergoes transient phosphorylation during enzymatic cycling. Through this mechanism, NME2 contributes to regulation of GTP-dependent pathways, including those involving small GTP-binding proteins that control proliferation and cytoskeletal dynamics.

The NME2 gene is located on chromosome 17q21.3 and is closely related to NME1, another well-studied family member implicated in metastasis suppression. In addition to its enzymatic role, NME2 has been reported to participate in transcriptional regulation and protein-protein interactions that influence gene expression, cellular growth, and differentiation. These multifunctional properties expand its biological significance beyond nucleotide metabolism alone.

Altered expression of NME family proteins has been documented in various malignancies, where expression levels may correlate with tumor progression, differentiation status, or metastatic potential depending on context. Because NME2 influences signaling pathways linked to cell motility and proliferation, it remains of interest in cancer biology and developmental studies.

NME2 is widely expressed across normal tissues, consistent with its essential role in maintaining cellular nucleotide equilibrium. Its predominantly cytoplasmic staining pattern, with occasional nuclear distribution, makes NME2 antibody useful for investigating metabolic regulation and signal integration in both normal and transformed cells.

Clone NME2/6433 is a monoclonal antibody designed to detect NME2 protein in research applications. An antibody to NME2 is suitable for studying Nucleoside diphosphate kinase B expression and for examining cellular metabolism and

signaling networks in relevant experimental systems.

Application Notes

Optimal dilution of the NME2 antibody should be determined by the researcher.

Immunogen

Recombinant full-length human NME2 protein was used as the immunogen for the NME2 antibody.

Storage

Aliquot the NME2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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