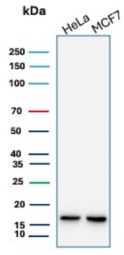
# nm23-H2 Antibody / NME2 / Nucleoside diphosphate kinase B [clone NME2/12953R] (V5959)

| Catalog No. | Formulation | Size |
|---|---|---|
| V5959-100UG | 0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide | 100 ug |
| V5959-20UG | 0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide | 20 ug |
| V5959SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

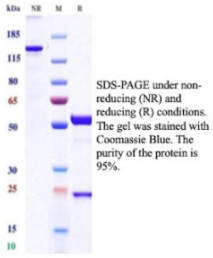
Recombinant RABBIT MONOCLONAL

**Bulk quote request**

| | |
|---|---|
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG, kappa |
| **Clone Name** | NME2/12953R |
| **UniProt** | P22392 |
| **Localization** | Cytoplasm, Nucleus |
| **Applications** | Western Blot : 2-4ug/ml |
| **Limitations** | This nm23-H2/NME2 antibody is available for research use only. |




Western Blot Analysis of nm23-H2 / NME2 antibody (clone NME2/12953R). Human HeLa and human MCF7 whole cell lysates show a distinct immunoreactive band at approximately 17 kDa, consistent with the predicted molecular weight of NME2. The band appears as a single, sharp species in both cell lines with no significant non-specific background under reducing conditions, supporting specific detection of nm23-H2 protein.




SDS-PAGE analysis of purified nm23-H2/NME2 antibody (clone NME2/12953R). Confirmation of Purity and Integrity of Antibody.

## Description

nm23-H2 antibody recognizes Nucleoside diphosphate kinase B, a multifunctional enzyme encoded by the human NME2 gene that plays a central role in nucleotide metabolism and cellular signaling. nm23-H2 antibody detects a ubiquitously expressed cytoplasmic protein that catalyzes the transfer of terminal phosphates between nucleoside triphosphates and diphosphates, thereby maintaining balanced intracellular pools of ATP, GTP, CTP, and UTP required for DNA replication, RNA transcription, and energy-dependent signaling pathways. The protein is primarily localized in the cytoplasm but may also be detected in the nucleus depending on cellular context.

nm23-H2 antibody, also referred to as NME2 antibody and Nucleoside diphosphate kinase B antibody in the literature, targets a member of the NME gene family. The nm23-H2 protein forms a functional hexamer and contains a conserved histidine residue within its catalytic domain that undergoes transient phosphorylation during phosphotransfer reactions. Through regulation of GTP availability, nm23-H2 contributes to signaling pathways involving small GTP-binding proteins that control proliferation, cytoskeletal organization, and vesicle trafficking.

The NME2 gene is located on chromosome 17q21.3 and is closely related to NME1, another nm23 family member historically associated with metastasis suppression. Beyond its enzymatic activity, nm23-H2 has been implicated in transcriptional regulation and protein-protein interactions that influence gene expression and cellular differentiation. These additional functions expand its biological relevance beyond nucleotide homeostasis.

Altered expression of nm23 family proteins has been reported in multiple tumor types, where expression levels may correlate with tumor progression or metastatic behavior depending on cellular and tissue context. Because nm23-H2 influences signaling networks linked to growth control and motility, it has been studied extensively in cancer biology and developmental systems.

Expression of nm23-H2 is widespread in normal tissues, consistent with its fundamental metabolic role. Its predominantly cytoplasmic distribution, with occasional nuclear staining, makes nm23-H2 antibody useful for investigating nucleotide metabolism and regulatory signaling pathways in both normal and transformed cells.

Clone NME2/12953R is a recombinant monoclonal antibody developed to detect nm23-H2 protein in research applications. An antibody to nm23-H2 is suitable for studying NME2 expression and for examining cellular metabolism and signal transduction mechanisms in relevant experimental systems.

## Application Notes

Optimal dilution of the nm23-H2/NME2 antibody should be determined by the researcher.

## Immunogen

Recombinant full-length human NME2 protein was used as the immunogen for the nm23-H2/NME2 antibody.

## Storage

nm23-H2/NME2 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.