

## Recombinant Mouse Nme4 Protein, Myc/DDK-tagged

**Cat. No.** Nme4-4437M    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <b>Product Overview</b> | Purified recombinant protein of mouse full-length NME/NM23 nucleoside diphosphate kinase 4 (Nme4), with C-terminal MYC/DDK tag, expressed in HEK293T cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Description</b>      | <p>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. Through the catalyzed exchange of gamma-phosphate between di- and triphosphonucleosides participates in regulation of intracellular nucleotide homeostasis. Binds to anionic phospholipids, predominantly to cardiolipin; the binding inhibits its phosphotransfer activity. Acts as mitochondria-specific NDK; its association with cardiolipin-containing mitochondrial inner membrane is coupled to respiration suggesting that ADP locally regenerated in the mitochondrion innermembrane space by its activity is directly taken up via ANT ADP/ATP translocase into the matrix space to stimulate respiratory ATP regeneration. Proposed to increase GTP-loading on dynamin-related GTPase OPA1 in mitochondria. In vitro can induce liposome cross-linking suggesting that it can cross-link inner and outer membranes to form contact sites, and promotes intermembrane migration of anionic phospholipids. Promotes the redistribution of cardiolipin between the mitochondrial inner membrane and outer membrane which is implicated in pro-apoptotic signaling.</p> |

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|                       |                                                                                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 21 kDa                                                                                                                                        |
| <b>Purity</b>         | > 80% as determined by SDS-PAGE and Coomassie blue staining                                                                                   |
| <b>Stability</b>      | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| <b>Storage</b>        | Store at -80 centigrade after receiving vials.                                                                                                |
| <b>Concentration</b>  | >50 µg/mL as determined by microplate BCA method                                                                                              |
| <b>Storage Buffer</b> | 25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                         |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                      |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | Nme4 NME/NM23 nucleoside diphosphate kinase 4 [ Mus musculus (house mouse) ]                                                                                                                                                                                                         |
| <b>Official Symbol</b> | Nme4                                                                                                                                                                                                                                                                                 |
| <b>Synonyms</b>        | NME4; non-metastatic cells 4, protein expressed in; nucleoside diphosphate kinase, mitochondrial; NDK; NDPKD; NDP kinase, mitochondrial; nucleoside diphosphate kinase D; expressed in non-metastatic cells 4, protein; Nm23M4; NM23-M4; 2610027N22Rik; 2810024O08Rik; 5730493H09Rik |
| <b>Gene ID</b>         | 56520                                                                                                                                                                                                                                                                                |
| <b>mRNA Refseq</b>     | NM_019731                                                                                                                                                                                                                                                                            |
| <b>Protein Refseq</b>  | NP_062705                                                                                                                                                                                                                                                                            |
| <b>UniProt ID</b>      | Q9WV84                                                                                                                                                                                                                                                                               |

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