# Nucleoside Diphosphate Kinase, Mitochondrial (NME4) Mouse Recombinant Protein

## PRODUCT OVERVIEW

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| **Product Name** | Nucleoside diphosphate kinase, mitochondrial (Nme4), Recombinant Protein |
| **Full Product Name** | Recombinant Mouse Nucleoside diphosphate kinase, mitochondrial (Nme4) |
| **Product Gene Name** | Nme4 recombinant protein |
| **Product Synonym Gene Name** | Nme4 |
| **Sequence** | PWPQERTLVA VKPDGVQRRL VGTVIQRFER RGFKLVGMKM LQAPESILAE HYRDLQRKPF YPALISYMSS GPVVAMVWEG PNVVHISRAM IGHTDSTEAA PGTIRGDFSV HISRNVIHAS DSVDGAQREI ELWFQSSELL NWADGGHHSS CYPA |
| **Host** | E Coli or Yeast or Baculovirus or Mammalian Cell |
| **Form/Format** | Lyophilized or liquid (Format to be determined during the manufacturing process) |
| **Purity/Purification** | Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific) |
| **Preparation and Storage** | Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended. |
| **Molecular Weight** | 20,549 Da |
| **Sequence Positions** | 33-186, full length protein |
| **Tag Information** | This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information. |
| **Sterility** | Sterile filter available upon request. |
| **Endotoxin** | Low endotoxin available upon request. |
| **3D Structure** | ModBase 3D Structure for Q9WV84 |
| **Species** | Mouse |
| **ISO Certification** | Manufactured in an ISO 9001:2015 Certified Laboratory. |
| **Related Product Information for Nme4 recombinant protein** | MBS1351773 is a recombinant protein targeting Nme4. Also known as Recombinant Mouse Nucleoside diphosphate kinase, mitochondrial (Nme4). Host: E Coli or Yeast or Baculovirus or Mammalian Cell. |
| **Other Notes** | Small volumes of Nme4 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Nme4. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 9790123 |
| **NCBI GeneID** | 56520 |
| **NCBI Accession #** | NP_062705.1 |
| **UniProt Primary Accession #** | Q9WV84 |
| **UniProt Related Accession #** | Q9WV84 |
| **GenBank Nucleotide #** | NM_019731.1 |

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| **NCBI Official Full Name** | nucleoside diphosphate kinase, mitochondrial |
| **NCBI Official Synonym Full Names** | NME/NM23 nucleoside diphosphate kinase 4 |
| **NCBI Official Symbol** | Nme4 |
| **NCBI Official Synonym Symbols** | Nm23M4; NM23-M4; 2610027N22Rik; 2810024O08Rik; 5730493H09Rik |
| **UniProt Protein Name** | Nucleoside diphosphate kinase, mitochondrial |
| **UniProt Synonym Protein Names** | Nucleoside diphosphate kinase D; NDPKD; nm23-M4 |
| **UniProt Gene Name** | Nme4 |
| **UniProt Synonym Gene Names** | NDK; NDP kinase, mitochondrial; NDPKD |
| **NCBI Protein Information** | nucleoside diphosphate kinase, mitochondrial |
| **UniProt Comments for Nme4** | 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 phosphoplipids. Promotes the redistribution of cardiolipin between the mitochondrial inner membrane and outer membrane which is implicated in pro-apoptotic signaling (). |
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