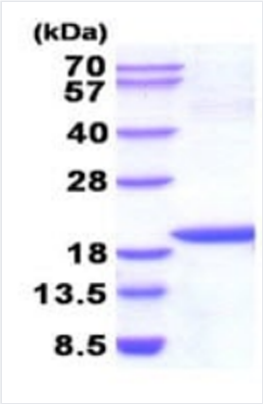
NME1 Active Protein

PRODUCT OVERVIEW

Product Name	NME1, Active Protein
Full Product Name	NME1, 1-152aa, Human, E Coli (Bioactivity Validated)
Product Gene Name	NME1 active protein
Product Synonym Names	Non-metastatic cells 1; Nucleoside diphosphate kinase A; NDP kinase A; AWD; GAAD; NB; NBS; NDPK-A; NM23; NM23-H1
Sequence	MANCERTFIA IKPDGVQRGL VGEIIKRFEQ KGFRLVGLKF MQASEDLLKE HYVDLKDRPF FAGLVKYMHS GPVVAMVWEG LNVVKTGRVM LGETNPADSK PGTIRGDFCI QVGRNIIHGS DSVESAEKEI GLWFHPEELV DYTSCAQNWI YE
Host	E Coli
Form/Format	Liquid. In 20mM Tris-HCl Buffer (pH 7.5) containing 1mM DTT, 10% glycerol
Purity/Purification	> 90% by SDS-PAGE
Concentration	1 mg/ml (determined by Bradford assay) (lot specific)
Preparation and Storage	For long term storage, aliquot and store at -20 degree C or -80 degree C. Avoid repeated freezing and thawing cycles.
Molecular Weight	17.1 kDa (152aa), confirmed by MALDI-TOF
OMIM	X17620 mRNA
3D Structure	ModBase 3D Structure for P15531
Active Protein Note	Protein activity can be an ambiguous term. Please refer to the data sheet or inquire with Technical Support to determine the definition of activity for this product.
Antigen Species	Human
Domain	1-152aa
Endotoxin Level	< 1.0 EU per 1 microgram of protein (determined by LAL method)
Biological Activity	Specific activity is > 1,200 units/mg, and is defined as the amount of enzyme that convert 1.0 umole each of ATP and TDP to ADP and TTP per minute at pH 7.5 at 25C in a couple system with PK/LDH.
Dry Ice Shipment	Extra charge fee may add to your shipping cost as dry ice is required to ship this product.
Product Categories/Family for NME1 active protein	Cancer; Differentiation &Regeneration; Neurodisease; Metabolism
Applications Tested/Suitable for NME1 active protein	SDS-PAGE, Enzyme Activity
Related Product Information for NME1 active protein	Non-metastatic cells 1 (NME1), also known as NM23-H1, originally identified as a candidate metastasis suppressor gene. NME1 is expressed in different tumor types where their levels have been alternatively associated with reduced or increased metastatic potential. Reductions in NME1 expression have been significantly associated with aggressive behavior in melanoma, breast, colon, and gastric carcinomas. On the contrary, high levels of NME1 gene expression are noted in the advanced stage of thyroid carcinomas. Recombinant human NME1 was expressed in E Coli and purified by using conventional chromatography techniques.
Product References and Citations for NME1 active protein	Tee YT., et al. (2006) Taiwan J Obstet Gynecol. 45 (2):107-13.; Negroni A., et al. (2000) Cell Death Differ. 7 (9):843-50.

Other Notes	Small volumes of NME1 active 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.
Searchable Terms for NME1 purchase	MBS206217 is an active protein targeting NME1. Also known as NME1, 1-152aa, Human, E Coli (Bioactivity Validated). Host: E Coli.



SDS-Page of NME1 active protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NME1. It may not necessarily be applicable to this product.

NCBI GI #	4557797
NCBI GeneID	4830
NCBI Accession #	NP_000260
UniProt Primary Accession #	P15531
UniProt Secondary Accession #	Q6FGK3; Q86XQ2; Q9UDJ6
UniProt Related Accession #	P15531
GenBank Nucleotide #	NM_000269.2
NCBI Official Full Name	nucleoside diphosphate kinase A isoform b
NCBI Official Synonym Full Names	NME/NM23 nucleoside diphosphate kinase 1
NCBI Official Symbol	NME1
NCBI Official Synonym Symbols	NB; AWD; NBS; GAAD; NDKA; NM23; NDPKA; NDPK-A; NM23-H1
UniProt Protein Name	Nucleoside diphosphate kinase A
UniProt Synonym Protein Names	Granzyme A-activated DNase; GAAD; Metastasis inhibition factor nm23; NM23-H1; Tumor metastatic process-associated protein
Protein Family	Nucleoside diphosphate kinase
UniProt Gene Name	NME1
UniProt Synonym Gene Names	NDPKA; NM23; NDK A; NDP kinase A; GAAD
NCBI Protein Information	nucleoside diphosphate kinase A

NCBI Summary for NME1	This gene (NME1) was identified because of its reduced mRNA transcript levels in highly metastatic cells. Nucleoside diphosphate kinase (NDK) exists as a hexamer composed of 'A' (encoded by this gene) and 'B' (encoded by NME2) isoforms. Mutations in this gene have been identified in aggressive neuroblastomas. Two transcript variants encoding different isoforms have been found for this gene. Co-transcription of this gene and the neighboring downstream gene (NME2) generates naturally-occurring transcripts (NME1-NME2), which encodes a fusion protein comprised of sequence sharing identity with each individual gene product. [provided by RefSeq, Jul 2008]
UniProt Comments for NME1	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. Possesses nucleoside-diphosphate kinase, serine/threonine-specific protein kinase, geranyl and farnesyl pyrophosphate kinase, histidine protein kinase and 3'-5' exonuclease activities. Involved in cell proliferation, differentiation and development, signal transduction, G protein-coupled receptor endocytosis, and gene expression. Required for neural development including neural patterning and cell fate determination. During GZMA-mediated cell death, works in concert with TREX1. NME1 nicks one strand of DNA and TREX1 removes bases from the free 3' end to enhance DNA damage and prevent DNA end reannealing and rapid repair.
Research Articles on NME1	**1.** Results demonstrate that nm23 plays a vital role in decidualization in mice and humans and that nm23 gene expression is hormonally regulated.
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