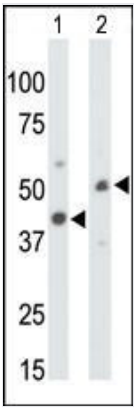
CKMT1A Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	CKMT1A, Polyclonal Antibody
Full Product Name	CKMT1A, NT (Creatine Kinase U-type, Mitochondrial, Ubiquitous Mitochondrial Creatine Kinase, U-MtCK, Acidic-type Mitochondrial Creatine Kinase, Mia-CK, CKMT1A, CKMT, CKMT1B, CKMT)
Product Gene Name	anti-CKMT1A antibody
Product Synonym Names	Anti -CKMT1A, NT (Creatine Kinase U-type, Mitochondrial, Ubiquitous Mitochondrial Creatine Kinase, U-MtCK, Acidic-type Mitochondrial Creatine Kinase, Mia-CK, CKMT1A, CKMT, CKMT1B, CKMT)
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Supplied as a liquid in PBS, 0.09% sodium azide.
Purity/Purification	Affinity Purified Purified by Protein G affinity chromatography.
Specificity	Recognizes human CKMT1A. Species Crossreactivity: mouse
Preparation and Storage	May be stored at 4 degree C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20 degree C. Aliquots are stable for at least 12 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	47,037 Da
Chromosome Location	Chromosome: 15; NC_000015.9 (43985084..43991420). Location: 15q15
OMIM	123290
3D Structure	ModBase 3D Structure for P12532
Immunogen	KLH-conjugated synthetic peptide corresponding to a portion of amino acids within residues aa62-92 from the N-terminal region of human CKMT1A.
Product Categories/Family for anti-CKMT1A antibody	Antibodies; Abs to Enzymes; Creatine Kinase
Applications Tested/Suitable for anti-CKMT1A antibody	ELISA (EL/EIA), Western Blot (WB)
Application Notes for anti-CKMT1A antibody	Suitable for use in ELISA and Western Blot. Dilution: ELISA: 1:1000 Western Blot: 1:100-1:500
Related Product Information for anti-CKMT1A antibody	Mitochondrial creatine kinase (MtCK) is responsible for the transfer of high energy phosphate from mitochondria to the cytosolic carrier, creatine. It belongs to the creatine kinase isoenzyme family. It exists as two isoenzymes, sarcomeric MtCK and ubiquitous MtCK, encoded by separate genes. Mitochondrial creatine kinase occurs in two different oligomeric forms: dimers and octamers, in contrast to the exclusively dimeric cytosolic creatine kinase isoenzymes. Many malignant cancers with poor prognosis have shown overexpression of ubiquitous mitochondrial creatine kinase, this may be related to high energy turnover and failure to eliminate cancer cells via apoptosis. Ubiquitous mitochondrial creatine kinase has 80% homology with the coding exons of sarcomeric mitochondrial creatine kinase.

Other Notes	Small volumes of anti-CKMT1A antibody 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 CKMT1A purchase	MBS627203 is an antibody targeting CKMT1A. Also known as CKMT1A, NT (Creatine Kinase U-type, Mitochondrial, Ubiquitous Mitochondrial Creatine Kinase, U-MtCK, Acidic-type Mitochondrial Creatine Kinase, Mia-CK, CKMT1A, CKMT, CKMT1B, CKMT). Reactive in Human, Mouse. Host: Rabbit.



Western Blot (WB) of anti-CKMT1A antibody
The anti-CKMT1 Pab is used in Western blot to detect CKMT1 in mouse colon tissue lysate (Lane 1) and ZR-75-1 cell lysate (Lane 2).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CKMT1A. It may not necessarily be applicable to this product.

NCBI GI #	66346730
NCBI GeneID	548596
NCBI Accession #	NP_001015001.1
UniProt Primary Accession #	P12532
UniProt Secondary Accession #	Q0VAM3; Q32NF6; Q53FC4; B4DIT8; B7ZA09
UniProt Related Accession #	P12532
GenBank Nucleotide #	NM_001015001.1
NCBI Official Full Name	creatine kinase U-type, mitochondrial
NCBI Official Synonym Full Names	creatine kinase, mitochondrial 1A
NCBI Official Symbol	CKMT1A
NCBI Official Synonym Symbols	CKMT1
UniProt Protein Name	Creatine kinase U-type, mitochondrial
UniProt Synonym Protein Names	Acidic-type mitochondrial creatine kinase; Mia-CK; Ubiquitous mitochondrial creatine kinase
UniProt Gene Name	CKMT1A
UniProt Synonym Gene Names	CKMT; Mia-CK; U-MtCK
UniProt Entry Name	KCRU_HUMAN
NCBI Protein Information	creatine kinase U-type, mitochondrial; U-MtCK; mia-CK; ubiquitous mitochondrial creatine kinase; acidic-type mitochondrial creatine kinase; creatine kinase, mitochondrial 1 (ubiquitous)

NCBI Summary for CKMT1A	Mitochondrial creatine (MtCK) kinase is responsible for the transfer of high energy phosphate from mitochondria to the cytosolic carrier, creatine. It belongs to the creatine kinase isoenzyme family. It exists as two isoenzymes, sarcomeric MtCK and ubiquitous MtCK, encoded by separate genes. Mitochondrial creatine kinase occurs in two different oligomeric forms: dimers and octamers, in contrast to the exclusively dimeric cytosolic creatine kinase isoenzymes. Many malignant cancers with poor prognosis have shown overexpression of ubiquitous mitochondrial creatine kinase; this may be related to high energy turnover and failure to eliminate cancer cells via apoptosis. Ubiquitous mitochondrial creatine kinase has 80% homology with the coding exons of sarcomeric mitochondrial creatine kinase. Two genes located near each other on chromosome 15 have been identified which encode identical mitochondrial creatine kinase proteins. [provided by RefSeq, Jul 2008]
UniProt Comments for CKMT1A	CKMT1A: Reversibly catalyzes the transfer of phosphate between ATP and various phosphogens (e.g. creatine phosphate). Creatine kinase isoenzymes play a central role in energy transduction in tissues with large, fluctuating energy demands, such as skeletal muscle, heart, brain and spermatozoa. Belongs to the ATP:guanido phosphotransferase family. Exists as an octamer composed of four MTCK homodimers. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Amino Acid Metabolism - arginine and proline; Kinase, other; EC 2.7.3.2; Mitochondrial Chromosomal Location of Human Ortholog: 15q15 Cellular Component: mitochondrion; mitochondrial inner membrane Molecular Function: creatine kinase activity; ATP binding Biological Process: creatine metabolic process; phosphorylation
Research Articles on CKMT1A	**1.** Observational study of gene-disease association. (HuGE Navigator)
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