



uMtCK Monoclonal Antibody

Catalog No	YP-Ab-14208
Isotype	IgG
Reactivity	Human;Mouse;Rat;Dog;Pig;Rabbit
Applications	WB
Gene Name	CKMT1A/CKMT1B
Immunogen	Purified recombinant human uMtCK protein fragments expressed in E.coli.
Specificity	uMtCK Monoclonal Antibody detects endogenous levels of uMtCK protein.
Formulation	Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	Western Blot: 1/1000 - 1/2000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	CKMT1B;CKMT1;CKMT;CKMiMi;Acidic-type mitochondrial creatine kinase; uMtCK;CKMT1A/CKMT1B;Creatine kinase U-type mitochondrial;CKMT1A; Creatine kinase U-type;mitochondrial;Mia-CK;Ubiquitous mitochondrial creatine kinase;U-MtCK
Observed Band	
Calculated Molecular Weight	
Cell Pathway	Mitochondrion inner membrane; Peripheral membrane protein; Intermembrane side.
Tissue Specificity	Cerebellum,Lung,PNS,
Function	catalytic activity:ATP + creatine = ADP + phosphocreatine.,function: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.,miscellaneous:Mitochondrial creatine kinase binds cardiolipin.,similarity:Belongs to the ATP:guanido phosphotransferase family.,subunit:Exists as an octamer composed of four MTCK homodimers.,



Background

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 mi

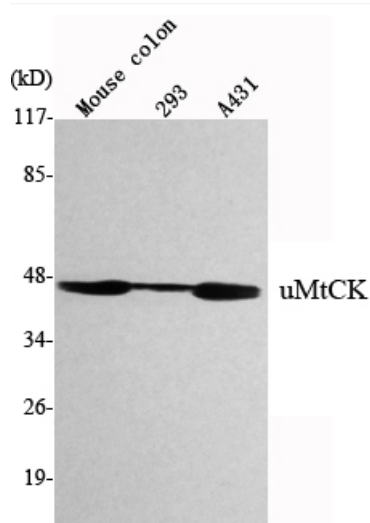
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis using uMtCK Monoclonal Antibody against Mouse Colon, 293, A431 cell lysate.