



sMtCK Monoclonal Antibody

Catalog No	YP-Ab-14207
Isotype	IgG
Reactivity	Human;Mouse;Rat;Dog;Pig;Rabbit
Applications	WB
Gene Name	CKMT2
Immunogen	Purified recombinant human sMtCK protein fragments expressed in E.coli.
Specificity	sMtCK Monoclonal Antibody detects endogenous levels of sMtCK 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	Basic-type mitochondrial creatine kinase;CKMT 2;Creatine kinase S-type; mitochondrial;EC:2.7.3.2;Mib;sMtCK;CKMT2;Creatine kinase S-type mitochondrial;Mib-CK;Sarcomeric mitochondrial creatine kinase;S-MtCK
Observed Band	
Calculated Molecular Weight	
Cell Pathway	Mitochondrion inner membrane; Peripheral membrane protein; Intermembrane side.
Tissue Specificity	Sarcomere-specific. Found only in heart and skeletal muscles.
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 CKMT2 homodimers.,tissue specificity:Sarcomere-specific. Found only in heart and skeletal muscles.,



Background

creatine kinase, mitochondrial 2(CKMT2) Homo sapiens 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. Sarcomeric mitochondrial creatine kinase has 80% homology with the coding exons of ubiquitous mitochondrial creatine kinase. This gene contains sequences homologous to several motifs that are shared among some nuclear genes encoding mitochondrial proteins and thus may be essential for the coordinated activation of these genes during mitochondrial biogenesis. Three transcript variants encoding the same protein have been found for this gen

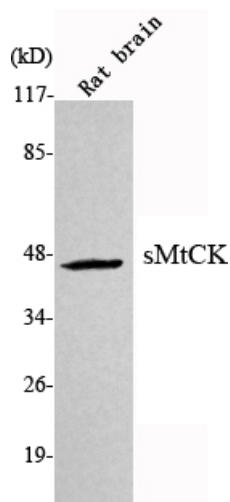
matters needing attention

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 sMtCK Monoclonal Antibody against rat brain lysate.