Product Name: sMtCK Rabbit Polyclonal Antibody
Catalog #: APRab18034

Summary

Production Name	sMtCK Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IF,WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	CKMT2
Alternative Names	CKMT2; Creatine kinase S-type; mitochondrial; Basic-type mitochondrial creatine kinase; Mib-CK; Sarcomeric mitochondrial creatine kinase; S-MtCK
Gene ID	1160.0
SwissProt ID	P17540.The antiserum was produced against synthesized peptide derived from human CKMT2. AA range:231-280

Application

Dilution Ratio	WB 1:500 - 1:2000. IF 1:200 - 1:1000. ELISA: 1:40000. Not yet tested in other applications.
Molecular Weight	48kD

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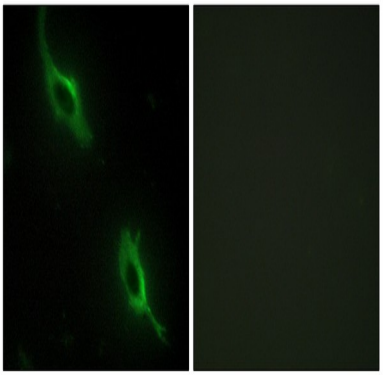
Background

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 gencatalytic 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.,

Research Area

Arginine and proline metabolism;

Image Data



Immunofluorescence analysis of NIH/3T3 cells, using CKMT2 Antibody. The picture on the right is blocked with the synthesized peptide.

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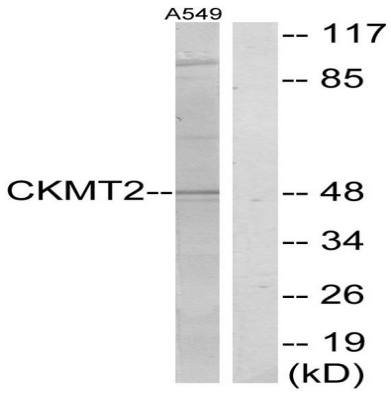
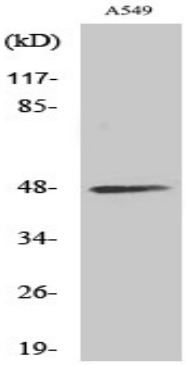


Western blot analysis of lysates from A549 cells, using CKMT2 Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using sMtCK Polyclonal Antibody

Note

For research use only.