



# sMtCK Polyclonal Antibody

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog No</b>         | BYab-31018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Isotype</b>            | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Reactivity</b>         | Human;Mouse;Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Applications</b>       | WB;IHC;IF;ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Gene Name</b>          | CKMT2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Protein Name</b>       | Creatine kinase S-type mitochondrial                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Immunogen</b>          | The antiserum was produced against synthesized peptide derived from human CKMT2. AA range:231-280                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Specificity</b>        | sMtCK Polyclonal Antibody detects endogenous levels of sMtCK protein.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Formulation</b>        | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Source</b>             | Polyclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Purification</b>       | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Dilution</b>           | Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/40000. Not yet tested in other applications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Concentration</b>      | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Purity</b>             | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Storage Stability</b>  | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Synonyms</b>           | CKMT2; Creatine kinase S-type; mitochondrial; Basic-type mitochondrial creatine kinase; Mib-CK; Sarcomeric mitochondrial creatine kinase; S-MtCK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Observed Band</b>      | 48kD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Cell Pathway</b>       | Mitochondrion inner membrane; Peripheral membrane protein; Intermembrane side.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Tissue Specificity</b> | Sarcomere-specific. Found only in heart and skeletal muscles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Function</b>           | 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., |

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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 gene

**matters needing attention**

Avoid repeated freezing and thawing!

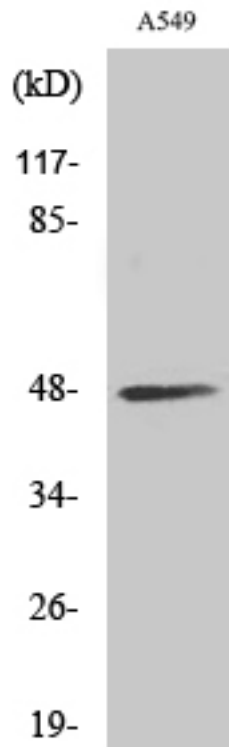
**Usage suggestions**

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

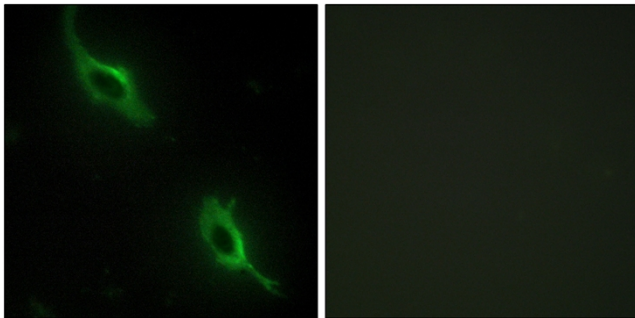
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## Products Images



Western Blot analysis of various cells using sMtCK Polyclonal Antibody



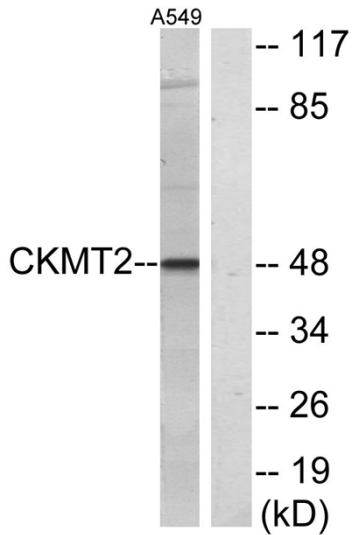
Immunofluorescence analysis of NIH/3T3 cells, using CKMT2 Antibody. The picture on the right is blocked with the synthesized peptide.

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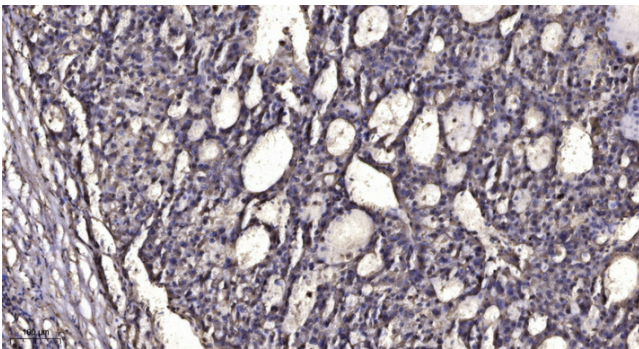
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监督电话: 15950492658



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



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).