



Rabbit Anti-CKMT2 antibody

SL3526R

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| Product Name: | CKMT2 |
| Chinese Name: | 肌酸磷酸激酶2抗体 |
| Alias: | CKMT 2; Basic-type mitochondrial creatine kinase; CKMT 2; CKMT2; CPK; Creatine kinase mitochondrial 2; Creatine kinase mitochondrial 2 (sarcomeric); Creatine kinase S-type; creatine kinase S-type, mitochondrial; Creatine kinase, sarcomeric mitochondrial; KCRS_HUMAN; Mib CK; Mib-CK; mitochondrial; OTTHUMP00000147542; S-MtCK; Sarcomeric mitochondrial creatine kinase; SMTCK. |
| Organism Species: | Rabbit |
| Clonality: | Polyclonal |
| React Species: | Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit, |
| Applications: | ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user. |
| Molecular weight: | 46kDa |
| Cellular localization: | cytoplasmicThe cell membraneMitochondrion |
| Form: | Lyophilized or Liquid |
| Concentration: | 1mg/ml |
| immunogen: | KLH conjugated synthetic peptide derived from human CKMT2:331-419/419 |
| Lsotype: | IgG |
| Purification: | affinity purified by Protein A |
| Storage Buffer: | 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol. |
| Storage: | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |
| PubMed: | PubMed |
| Product Detail: | CKMT2 (creatine kinase, mitochondrial 2 (sarcomeric)) is a creatine kinase isoenzyme, (reversibly) catalyzing the production of ATP from ADP by converting Phosphocreatine to creatine. Phosphocreatine serves as an energy reservoir for the rapid generation of |

ATP. Mitochondrial creatine kinase exists as two isoenzymes, sarcomeric mitochondrial creatine kinase (CKMT2) and ubiquitous creatine kinase; these are encoded by separate genes. Mitochondrial creatine kinases 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. The CKMT2 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.

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.

Subunit:

Exists as an octamer composed of four CKMT2 homodimers.

Subcellular Location:

Mitochondrion inner membrane; Peripheral membrane protein; Intermembrane side.

Tissue Specificity:

Sarcomere-specific. Found only in heart and skeletal muscles.

Similarity:

Belongs to the ATP:guanido phosphotransferase family.

Contains 1 phosphagen kinase C-terminal domain.

Contains 1 phosphagen kinase N-terminal domain.

SWISS:

P17540

Gene ID:

1160

Database links:

[Entrez Gene: 538944](#)Cow

[Entrez Gene: 1160](#)Human

[Entrez Gene: 76722](#)Mouse

[Entrez Gene: 688698](#)Rat

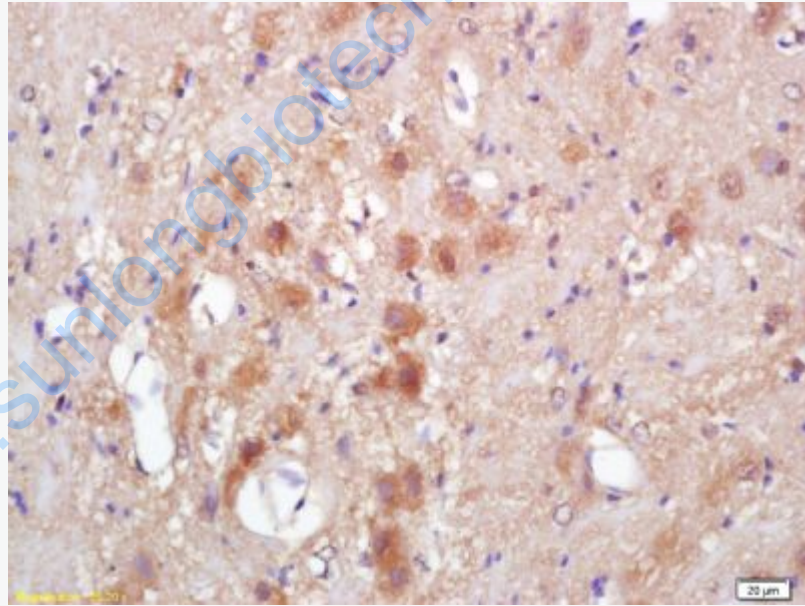
[Omim: 123295](#)Human

[SwissProt: Q3ZBP1](#)Cow
[SwissProt: P17540](#)Human
[SwissProt: Q6P8J7](#)Mouse
[SwissProt: P09605](#)Rat
[Unigene: 80691](#)Human
[Unigene: 316438](#)Mouse
[Unigene: 162549](#)Rat

Important Note:

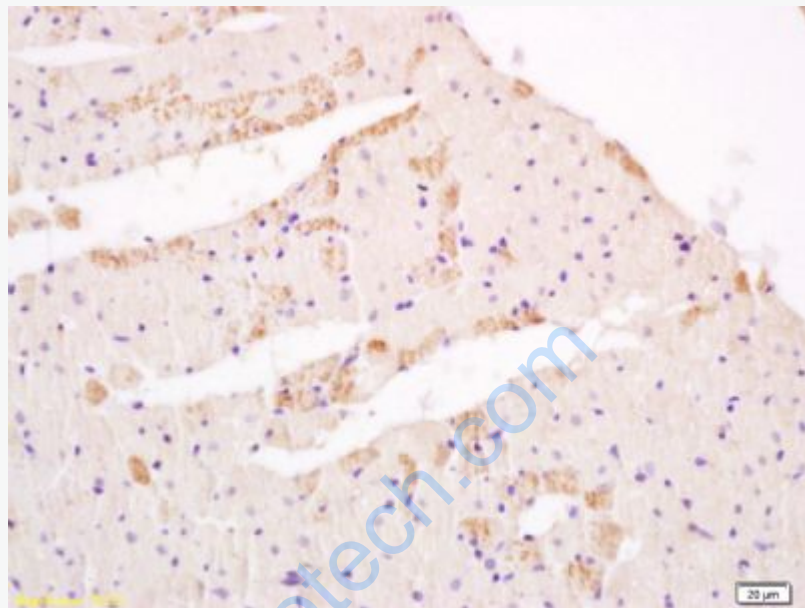
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Picture:



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-CKMT2 Polyclonal Antibody, Unconjugated(SL3526R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and

DAB(C-0010) staining



Tissue/cell: rat heart tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-CKMT2 Polyclonal Antibody, Unconjugated(SL3526R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining