A3046
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CKMT1B Rabbit pAb

Catalog No.: A3046

Basic Information

Observed MW
42kDa

Calculated MW
47kDa

Category
Polyclonal Antibody

Applications
WB,IF/ICC,IP,ELISA

Cross-Reactivity
Human,Mouse,Rat

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 mitochondrial creatine kinase proteins.

Recommended Dilutions

WB	1:500 - 1:2000
IF/ICC	1:50 - 1:100
IP	0.5μg-4μg antibody for 400μg-600μg extracts of whole cells
ELISA	Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.

Immunogen Information

Gene ID
1159

Swiss Prot
P12532

Immunogen
Recombinant fusion protein containing a sequence corresponding to amino acids 1-85 of human CKMT1B (NP_066270.1).

Synonyms
CKMT; CKMT1; UMTCK; CKMT1B

Product Information

Source
Rabbit

Isotype
IgG

Purification
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS with 0.01% thimerosal,50% glycerol,pH7.3.

Contact

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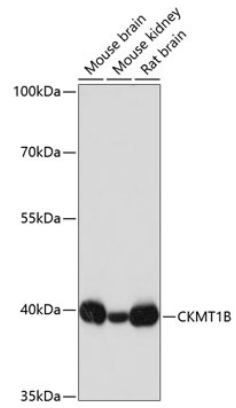
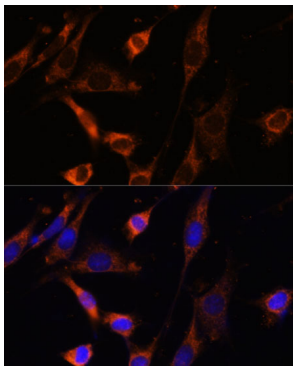
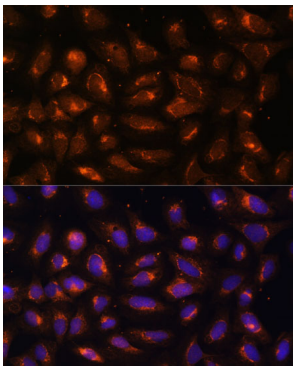
Validation Data



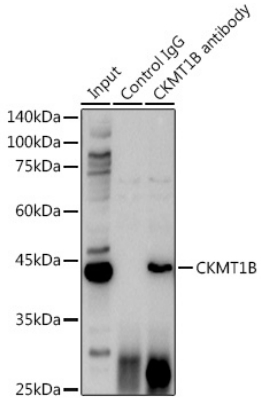
Western blot analysis of various lysates using CKMT1B Rabbit pAb (A3046) at 1:3000 dilution.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 3s.



Immunofluorescence analysis of NIH-3T3 cells using CKMT1B Rabbit pAb (A3046) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of U-2 OS cells using CKMT1B Rabbit pAb (A3046) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



Immunoprecipitation analysis of 600 µg extracts of Mouse brain cells using 3 µg CKMT1B antibody (A3046). Western blot was performed from the immunoprecipitate using CKMT1B antibody (A3046) at a dilution of 1:1000.