

**AM50081PU-S****Monoclonal Antibody to CKMT - Purified****Alternate names:**

Acidic-type mitochondrial creatine kinase, CKMT1A, CKMT1B, Creatine kinase U, Mia-CK, U-MtCK, ubiquitous mitochondrial Creatine kinase

**Quantity:**

50 µl

**Concentration:**

1.0 mg/ml

**Background:**

CKMT1A, also known as Creatine kinase, mitochondrial 1A, is 417 amino acid protein. Mitochondrial creatine kinase (MtCK) exists as two isoenzymes, sarcomeric MtCK (CKMT2) and ubiquitous MtCK (CKMT1). It is responsible for the transfer of high energy phosphate from mitochondria to the cytosolic carrier, creatine. 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.

**Uniprot ID:**

[P12532](#)

**NCBI:**

[NP\\_001015001](#)

**GeneID:**

[1159](#)

**Host / Isotype:**

Mouse / IgG2b

**Recommended Isotype**

SM12P, AM03110PU-N

**Controls:****Clone:**

AT17A2

**Immunogen:**

Recombinant human CKMT1A (40-417aa) purified from E. coli

**Format:**

**State:** Liquid purified Ig fraction

**Purification:** Protein-A affinity chromatography

**Buffer System:** PBS, pH 7.4 containing 0.02% Sodium Azide and 10% Glycerol

**Applications:**

**ELISA.**

**Western blot.**

**Flow Cytometry.**

**Immunofluorescence.**

Recommended starting dilution is 1:1000.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

**Specificity:**

**Species:** Human

Other species not tested.

**Storage:**

Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

**General Readings:**

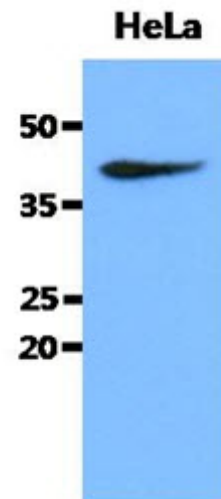
Haas. R.C., et al. (1989) J Biol Chem 264(5): 2890-2897

Stachowiak. O., et al. (1998) Mol Cell Biochem 184(1-2): 141-151

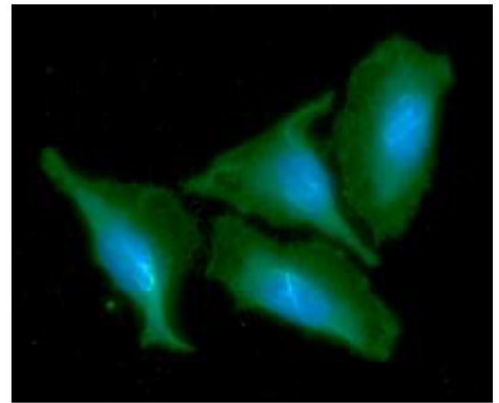
Lipskaya. T.Y. (2001) Biochemistry Mosc 66(10): 1098-1111

**Pictures:**

The cell lysates of HeLa (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human CKMT1A antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.



ICC/IF analysis of CKMT1A in HeLa cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human CKMT1A antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



The cell lysates (40  $\mu$ g) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human CKMT1A antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. Lane 1: 293T cell lysate. Lane 2: HeLa cell lysate.

