

Monoclonal anti-human CKMT1A antibody (clone AT17A2)

Mouse IgG_{2b}, κ

Cat. No. IBATGA0296

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

NCBI Accession No.: NP_001015001

Isotype: Mouse IgG_{2b} heavy chain and κ light chain

Clone: Anti-human CKMT1A mAb, clone AT17A2, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human CKMT1A protein.

Description: 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.

Concentration: 1 mg/ml

Form: Liquid. In Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% Glycerol

Storage: Can be stored at +4C. For long term storage, aliquot and store at -20C. Avoid repeated freezing and thawing cycles.

Usage: The antibody has been tested by ELISA, Western blot analysis, Flow cytometry and ICC/IF to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

Application: ELISA, WB, Flow cytometry, ICC/IF

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



Manufactured for:

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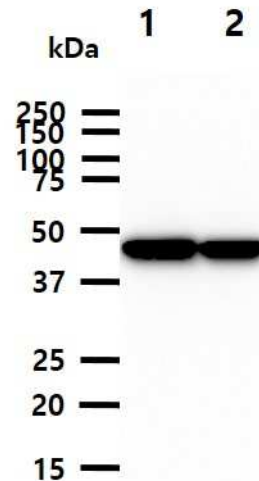
Product information

Western blot analysis

The cell lysates (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.

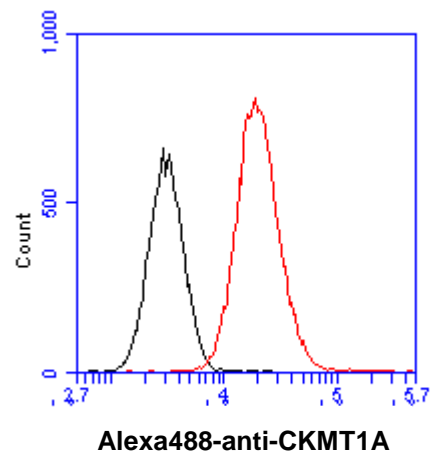
Lane 1.: 293T cell lysate

Lane 2.: HeLa cell lysate



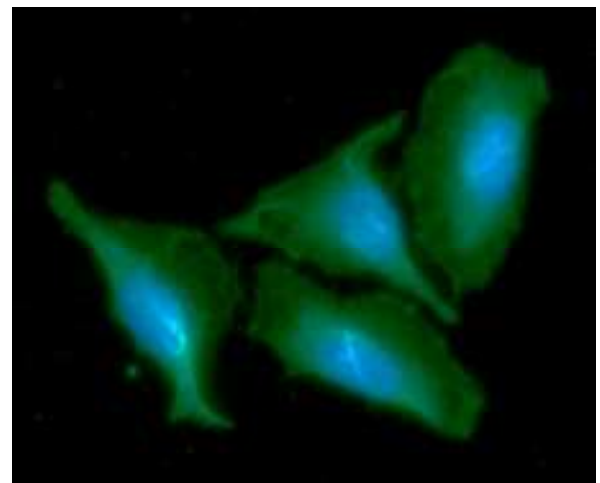
Flow cytometry

Flow cytometry analysis of CKMT1A in HeLa cell line, staining at 2-5ug for 1×10^6 cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).



ICC/IF analysis

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).



- General references:** 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

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