

CKAP2 (K-18): sc-84056

BACKGROUND

CKAP2 (cytoskeleton associated protein 2) is localized to the cytoplasm of humans and is expressed in tissues, including thymus and testis. CKAP2 is also referred to as LB1, TMAP or se20-10, and is a 682 amino acid protein which is expressed as 3 isoforms. CKAP2 is utilized during mitosis and is involved in regulating functions of microtubules, cellular death and the cell cycle. Before mitosis, CKAP2 is expressed in the cell cycle between phases G₁ and S, and accumulates between phases S and G₂. During mitosis, when the anaphase promoting complex is activated, CKAP2 is degraded. The regulation of CKAP2 is essential for proper spindle functions and cytokinesis, and it is thought that CKAP2 function is mediated via phosphorylation and dephosphorylation. Upon activation of p53 by CKAP2, the G₁ phase of the cell cycle is stopped, leading to cell death and apoptosis. Gastric tumors contain excessive amounts of CKAP2, which can lead to unregulated spindle functions and may be involved in the development and progression of gastric cancer.

REFERENCES

1. Udina, I.G., et al. 2001. Evolutionarily-conserved gene CKAP2, located in region 13q14.3 of the human genome, is frequently rearranged in various tumors. *Genetika* 37: 120-123.
2. Rakhmanaliev, E.R., et al. 2002. The structure of the human oncogenesis-associated CKAP2 (LB1) gene. *Mol. Biol.* 36: 985-989.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611569. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Bae, C.D., et al. 2003. Upregulation of cytoskeletal-associated protein 2 in primary human gastric adenocarcinomas. *J. Cancer Res. Clin. Oncol.* 129: 621-630.
5. Tsuchihara, K., et al. 2005. CKAP2 regulates aneuploidy, cell cycling, and cell death in a p53-dependent manner. *Cancer Res.* 65: 6685-6691.
6. Jeon, S.M., et al. 2006. A cytoskeleton-associated protein, TMAP/CKAP2, is involved in the proliferation of human foreskin fibroblasts. *Biochem. Biophys. Res. Commun.* 348: 222-228.

CHROMOSOMAL LOCATION

Genetic locus: CKAP2 (human) mapping to 13q14.3.

SOURCE

CKAP2 (K-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of CKAP2 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84056 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

CKAP2 (K-18) is recommended for detection of CKAP2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CKAP2 siRNA (h): sc-105207, CKAP2 shRNA Plasmid (h): sc-105207-SH and CKAP2 shRNA (h) Lentiviral Particles: sc-105207-V.

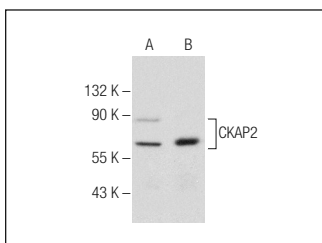
Molecular Weight of CKAP2: 75 kDa.

Positive Controls: CKAP2 (h): 293T Lysate: sc-177064.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CKAP2 (K-18): sc-84056. Western blot analysis of CKAP2 expression in non-transfected: sc-117752 (A) and human CKAP2 transfected: sc-177064 (B) 293T whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

MONOS
Satisfaction
Guaranteed

Try **CKAP2 (B-12): sc-398286** or **CKAP2 (D-12): sc-393629**, our highly recommended monoclonal alternatives to CKAP2 (K-18).