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

CHROMOSOMAL LOCATION
Genetic locus: CKAP2 (human) mapping to 13q14.3; Ckap2 (mouse) mapping to 129: 621-630.

SOURCE
CKAP2 (B-12) is a mouse monoclonal antibody raised against amino acids 431-494 mapping within an internal region of CKAP2 of human origin.

PRODUCT
Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CKAP2 (B-12) is available conjugated to agarose (sc-398286 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398286 HRP), 200 µg/ml, for WB, IHC( P) and ELISA; to either phycoerythrin (sc-398286 PE), fluorescein (sc-398286 FITC), Alexa Fluor® 488 (sc-398286 AF488), Alexa Fluor® 546 (sc-398286 AF546), Alexa Fluor® 594 (sc-398286 AF594) or Alexa Fluor® 647 (sc-398286 AF647), 200 µg/ml, for WB (RGB), IF, IHC( P) and FCM; and to either Alexa Fluor® 680 (sc-398286 AF680) or Alexa Fluor® 790 (sc-398286 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS
CKAP2 (B-12) is recommended for detection of CKAP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 siRNA (m): sc-142352, CKAP2 shRNA Plasmid (h): sc-105207-SH, CKAP2 shRNA Plasmid (m): sc-142352-SH, CKAP2 shRNA (h) Lentiviral Particles: sc-105207-V and CKAP2 shRNA (m) Lentiviral Particles: sc-142352-V.

Molecular Weight of CKAP2: 75 kDa.


RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG B P-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminal Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 [0.5 ml agarose/2.0 ml]. 3) Immunofluorescence: use m-IgGx BP-FITC: sc-516140 or m-IgGx BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA

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

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

PROTOCOLS
See our web site at www.scbt.com for detailed protocols and support products.