SANTA CRUZ BIOTECHNOLOGY, INC.

CKAP4 (A-3): sc-393544

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CKAP4 (cytoskeleton-associated protein 4), also known as p63, CLIMP-63 or ERGIC-63, is a 602 amino acid single-pass type II transmembrane protein that links the endoplasmic reticulum (ER) to the cytoskeleton. Considered a novel protein in maintaining ER morphology, CKAP4 anchors the ER to microtubles which is required for maintaining ER spatial distribution during interphase of the cell cycle. CKAP4 can be reversibly palmitoylated and phosphorylated and is a major substrate of the palmitoyl acyltransferase, ZDHHC2. It is suggested that CKAP4 binds with high affinity to an inhibitor of cell proliferation, antiproliferative factor (APF), and blocks its activity on bladder epithelial cells. Two isoforms of CKAP4 exist due to alternative splicing.

CHROMOSOMAL LOCATION

Genetic locus: CKAP4 (human) mapping to 12q23.3; Ckap4 (mouse) mapping to 10 C1.

SOURCE

CKAP4 (A-3) is a mouse monoclonal antibody raised against amino acids 513-602 mapping at the C-terminus of CKAP4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CKAP4 (A-3) is available conjugated to agarose (sc-393544 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393544 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393544 PE), fluorescein (sc-393544 FITC), Alexa Fluor® 488 (sc-393544 AF488), Alexa Fluor® 546 (sc-393544 AF546), Alexa Fluor® 594 (sc-393544 AF594) or Alexa Fluor® 647 (sc-393544 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393544 AF680) or Alexa Fluor® 790 (sc-393544 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

CKAP4 (A-3) is recommended for detection of CKAP4 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), immunohistochemistry (including paraffin-embedded sections) (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 CKAP4 siRNA (h): sc-95758, CKAP4 siRNA (m): sc-142354, CKAP4 shRNA Plasmid (h): sc-95758-SH, CKAP4 shRNA Plasmid (m): sc-142354-SH, CKAP4 shRNA (h) Lentiviral Particles: sc-95758-V and CKAP4 shRNA (m) Lentiviral Particles: sc-142354-V.

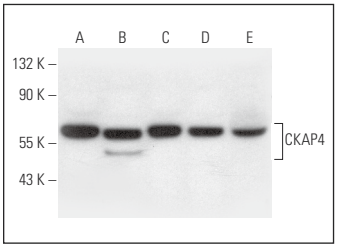
Molecular Weight of CKAP4: 63 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HEK293 whole cell lysate: sc-45136 or A-431 whole cell lysate: sc-2201.

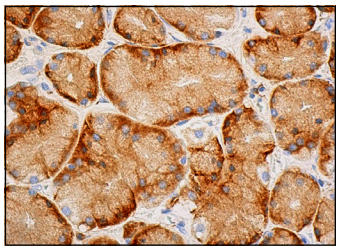
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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 Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



CKAP4 (A-3): sc-393544. Western blot analysis of CKAP4 expression in HeLa (**A**), RT-4 (**B**), HEK293 (**C**) and A-431 (**D**) whole cell lysates and human tonsil tissue extract (**E**).



CKAP4 (A-3): sc-393544. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Zhou, C., et al. 2021. TSPAN1 promotes autophagy flux and mediates cooperation between WNT-CTNNB1 signaling and autophagy via the MIR454-FAM83A-TSPAN1 axis in pancreatic cancer. Autophagy 17: 3175-3195.
2. Song, J.W., et al. 2021. GOLPH3/CKAP4 promotes metastasis and tumorigenicity by enhancing the secretion of exosomal WNT3A in non-small-cell lung cancer. Cell Death Dis. 12: 976.

STORAGE

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

PROTOCOLS

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