SANTA CRUZ BIOTECHNOLOGY, INC.

Cables2 (D-6): sc-376272

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cables2 (Cdk5 and ABL1 enzyme substrate 2), also known as Ik3-2, is a 478 amino acid ubiquitously expressed protein that has a C-terminal cyclin box-containing domain, making it a member of the cyclin protein super-family. A related protein, Cables, forms a trimolecular complex with Cdk5 and c-Abl *in vivo,* enhances apoptosis induced by overexpression of p53 and may be a tumor suppressor, due to its chromosomal loss of heterozygosity that is found in certain cancers. Cables2 shares 78% sequence similarity with Cables in the region of the cyclin box-containing domain and, in similar functionality, associates with Cdk3, Cdk5 and c-Abl. However, unlike its close relative, Cables2 also contains an N-terminal region that enhances not only p53-mediated cell death, but also p53-independent cell death. This characteristic suggests that the gene encoding Cables2 may also function as a tumor suppressor gene.

REFERENCES

1. Yamochi, T., et al. 2001. ik3-1/Cables is associated with Trap and Pctaire2. Biochem. Biophys. Res. Commun. 286: 1045-1050.
2. Yamochi, T., et al. 2001. ik3-1/Cables is a substrate for cyclin-dependent kinase 3 (cdk 3). Eur. J. Biochem. 268: 6076-6082.
3. Sato, H., et al. 2002. ik3-2, a relative to ik3-1/cables, is associated with Cdk3, Cdk5, and c-Abl. Biochim. Biophys. Acta 1574: 157-163.
4. Tsuji, K., et al. 2002. Differential effect of ik3-1/cables on p53- and p73-induced cell death. J. Biol. Chem. 277: 2951-2957.

CHROMOSOMAL LOCATION

Genetic locus: CABLES2 (human) mapping to 20q13.33; Cables2 (mouse) mapping to 2 H4.

SOURCE

Cables2 (D-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 85-119 within an internal region of Cables2 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.

Cables2 (D-6) is available conjugated to agarose (sc-376272 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376272 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376272 PE), fluorescein (sc-376272 FITC), Alexa Fluor® 488 (sc-376272 AF488), Alexa Fluor® 546 (sc-376272 AF546), Alexa Fluor® 594 (sc-376272 AF594) or Alexa Fluor® 647 (sc-376272 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376272 AF680) or Alexa Fluor® 790 (sc-376272 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376272 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Cables2 (D-6) is recommended for detection of Cables2 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 Cables2 siRNA (h): sc-72771, Cables2 siRNA (m): sc-141960, Cables2 shRNA Plasmid (h): sc-72771-SH, Cables2 shRNA Plasmid (m): sc-141960-SH, Cables2 shRNA (h) Lentiviral Particles: sc-72771-V and Cables2 shRNA (m) Lentiviral Particles: sc-141960-V.

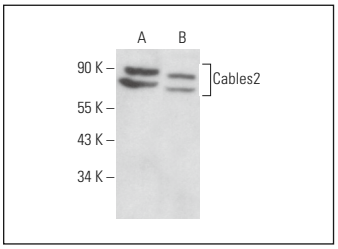
Molecular Weight of Cables2: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Caco-2 cell lysate: sc-2262.

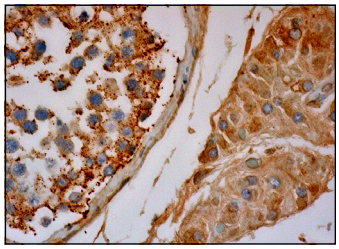
RECOMMENDED SUPPORT REAGENTS

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



Cables2 (D-6): sc-376272. Western blot analysis of Cables2 expression in HeLa (**A**) and Caco-2 (**B**) whole cell lysates.



Cables2 (D-6): sc-376272. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic staining of cells in seminiferous ducts and Leydig cells.

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.