SANTA CRUZ BIOTECHNOLOGY, INC.

Caper (P14): sc-101103



BACKGROUND

Caper, also known as splicing factor HCC1 or hepatocellular carcinoma protein 1 and RNA binding region containing protein 2 (RNPC2), acts as a transcriptional coactivator for steroid nuclear receptors c-Jun, ER α and ER β . Caper, a nuclear protein with highest concentrations in nuclear speckles, plays a role in the pre-mRNA splicing process. Two isoforms of Caper, HCC1.3 and HCC1.4, co-localize with pre-mRNA splicing factor SC35 and uridine-rich small nuclear RNAs. Caper is a widely expressed protein with highest levels detected in skeletal muscle, lung, brain and pancreas.

REFERENCES

- Imai, H., et al. 1993. Novel nuclear autoantigen with splicing factor motifs identified with antibody from hepatocellular carcinoma. J. Clin. Invest. 92: 2419-2426.
- Jung, D.J., et al. 2002. Molecular cloning and characterization of Caper, a novel coactivator of activating protein-1 and estrogen receptors. J. Biol. Chem. 277: 1229-1234.
- 3. Online Mendelian Inheritance in Man, OMIMTM. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604739. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Cazalla, D., et al. 2005. A novel SR-related protein is required for the second step of pre-mRNA splicing. Mol. Cell. Biol. 25: 2969-2980.

CHROMOSOMAL LOCATION

Genetic locus: RBM39 (human) mapping to 20q11.22; Rbm39 (mouse) mapping to 2 H1.

SOURCE

Caper (P14) is a mouse monoclonal antibody raised against recombinant Caper of human origin.

PRODUCT

Each vial contains 100 μg lgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Caper (P14) is recommended for detection of Caper of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 Caper siRNA (h): sc-60322, Caper siRNA (m): sc-60323, Caper shRNA Plasmid (h): sc-60322-SH, Caper shRNA Plasmid (m): sc-60323-SH, Caper shRNA (h) Lentiviral Particles: sc-60322-V and Caper shRNA (m) Lentiviral Particles: sc-60323-V.

Molecular Weight of Caper: 64 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA





Caper (P14): sc-101103. Western blot analysis of Caper expression in 293T whole cell lysate (A) and HeLa nuclear extract (B).

Caper (P14): sc-101103. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human endometrium tissue showing nuclear localization (**A**). Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear localization (**B**).

SELECT PRODUCT CITATIONS

- 1. Loerch, S., et al. 2014. Cancer-relevant splicing factor Caper α engages the essential splicing factor SF3b155 in a specific ternary complex. J. Biol. Chem. 289: 17325-17337.
- Tari, M., et al. 2019. U2AF65 assemblies drive sequence-specific splice site recognition. EMBO Rep. 20: e47604.

STORAGE

Store at 4° C, **D0 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.