

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

1. Imai, H., et al. 1993. Novel nuclear autoantigen with splicing factor motifs identified with antibody from hepatocellular carcinoma. *J. Clin. Invest.* 92: 2419-2426.
2. 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, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604739. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. 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 μ g IgG_{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.

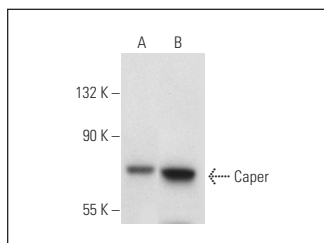
Molecular Weight of Caper: 64 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

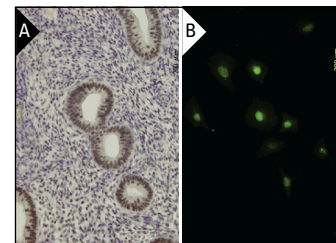
RECOMMENDED SUPPORT REAGENTS

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 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-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.
2. Tari, M., et al. 2019. U2AF65 assemblies drive sequence-specific splice site recognition. *EMBO Rep.* 20: e47604.

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.