

# Cactin (D-10): sc-515391

## BACKGROUND

Cactin, also known as fSAPc, NY-REN-24 or C19orf29, is a 758 amino acid nuclear protein that colocalizes with NFKBIL1 (NfκB inhibitor-like protein 1). Involved in the regulation of innate immune responses, Cactin may play a role in early embryonic development and pre-mRNA splicing. Cactin acts as a negative regulator of Toll-like receptor and IRF (interferon-regulatory factor) signaling pathways. In response to endogenous pro-inflammatory stimuli, Cactin regulates the transcriptional activation of NFκB genes. The gene encoding Cactin, which maps to human chromosome 19p13.3 and mouse chromosome 10 C1, may be associated with renal-cell carcinoma patients. Cactin exists as two alternatively spliced isoforms.

## REFERENCES

1. Scanlan, M.J., et al. 1999. Antigens recognized by autologous antibody in patients with renal-cell carcinoma. *Int. J. Cancer* 83: 456-464.
2. Jurica, M.S., et al. 2002. Purification and characterization of native spliceosomes suitable for three-dimensional structural analysis. *RNA* 8: 426-439.
3. Talmud, P.J., et al. 2009. Gene-centric association signals for lipids and apolipoproteins identified via the HumanCVD BeadChip. *Am. J. Hum. Genet.* 85: 628-642.

## CHROMOSOMAL LOCATION

Genetic locus: CACTIN (human) mapping to 19p13.3; Cactin (mouse) mapping to 10 C1.

## SOURCE

Cactin (D-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 268-291 within an internal region of Cactin of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Cactin (D-10) is available conjugated to agarose (sc-515391 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515391 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515391 PE), fluorescein (sc-515391 FITC), Alexa Fluor® 488 (sc-515391 AF488), Alexa Fluor® 546 (sc-515391 AF546), Alexa Fluor® 594 (sc-515391 AF594) or Alexa Fluor® 647 (sc-515391 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515391 AF680) or Alexa Fluor® 790 (sc-515391 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515391 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

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

## APPLICATIONS

Cactin (D-10) is recommended for detection of Cactin 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 Cactin siRNA (h): sc-97608, Cactin siRNA (m): sc-108767, Cactin shRNA Plasmid (h): sc-97608-SH, Cactin shRNA Plasmid (m): sc-108767-SH, Cactin shRNA (h) Lentiviral Particles: sc-97608-V and Cactin shRNA (m) Lentiviral Particles: sc-108767-V.

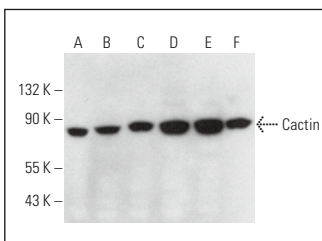
Molecular Weight of Cactin isoforms: 89/108 kDa.

Positive Controls: Ca Ski whole cell lysate: sc-364360, HeLa nuclear extract: sc-2120 or Jurkat nuclear extract: sc-2132.

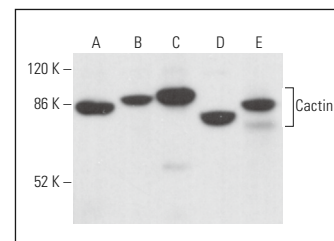
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (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.

## DATA



Cactin (D-10): sc-515391. Western blot analysis of Cactin expression in Ca Ski (A), MDA-MB-435S (B), RT-4 (C) and U-251-MG (D) whole cell lysates and Jurkat (E) and HeLa (F) nuclear extracts.



Cactin (D-10): sc-515391. Western blot analysis of Cactin expression in PC-3 (A), MCF7 (B), SP2/O (C) and NIH/3T3 (D) whole cell lysates and rat liver tissue extract (E).

## SELECT PRODUCT CITATIONS

1. Zhang, L., et al. 2020. lncRNA sensing of a viral suppressor of RNAi activates non-canonical innate immune signaling in *Drosophila*. *Cell Host Microbe* 27: 115-128.e8.

## RESEARCH USE

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

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