

CARP-1 (E-4): sc-515629

BACKGROUND

CARP-1 (cell division cycle and apoptosis regulator 1), also known as CCAR1 or DIS, is a 1,150 amino acid protein that localizes to the perinuclear region of the cytoplasm and contains one SAP domain. Expressed in several epithelial cancer cell lines, including breast, colon, prostate and leukemia, CARP-1 is involved in apoptotic signaling, as well as in cell cycle progression and cell proliferation via interaction with c-Myc and cyclin B1. CARP-1 is subject to DNA damage-induced phosphorylation, probably by ATM or ATR. The gene encoding CARP-1 maps to human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie-Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

REFERENCES

1. Rishi, A.K., Zhang, L., Boyanapalli, M., Wali, A., Mohammad, R.M., Yu, Y., Fontana, J.A., Hatfield, J.S., Dawson, M.I., Majumdar, A.P. and Reichert, U. 2003. Identification and characterization of a cell cycle and apoptosis regulatory protein-1 as a novel mediator of apoptosis signaling by retinoid CD437. *J. Biol. Chem.* 278: 33422-33435.
2. Rishi, A.K., Zhang, L., Yu, Y., Jiang, Y., Nautiyal, J., Wali, A., Fontana, J.A., Levi, E. and Majumdar, A.P. 2006. Cell cycle- and apoptosis-regulatory protein-1 is involved in apoptosis signaling by epidermal growth factor receptor. *J. Biol. Chem.* 281: 13188-13198.
3. Yang, W., Dicker, D.T., Chen, J. and El-Deiry, W.S. 2008. CARPs enhance p53 turnover by degrading 14-3-3 σ and stabilizing MDM2. *Cell Cycle* 7: 670-682.

CHROMOSOMAL LOCATION

Genetic locus: CCAR1 (human) mapping to 10q21.3; Ccar1 (mouse) mapping to 10 B4.

SOURCE

CARP-1 (E-4) is a mouse monoclonal antibody raised against amino acids 851-1150 mapping at the C-terminus of CARP-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CARP-1 (E-4) is available conjugated to agarose (sc-515629 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515629 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515629 PE), fluorescein (sc-515629 FITC), Alexa Fluor[®] 488 (sc-515629 AF488), Alexa Fluor[®] 546 (sc-515629 AF546), Alexa Fluor[®] 594 (sc-515629 AF594) or Alexa Fluor[®] 647 (sc-515629 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-515629 AF680) or Alexa Fluor[®] 790 (sc-515629 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CARP-1 (E-4) is recommended for detection of CARP-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CARP-1 siRNA (h): sc-77153, CARP-1 siRNA (m): sc-77154, CARP-1 shRNA Plasmid (h): sc-77153-SH, CARP-1 shRNA Plasmid (m): sc-77154-SH, CARP-1 shRNA (h) Lentiviral Particles: sc-77153-V and CARP-1 shRNA (m) Lentiviral Particles: sc-77154-V.

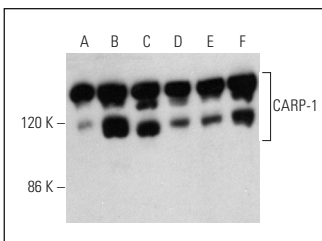
Molecular Weight of CARP-1: 130 kDa.

Positive Controls: T-47D cell lysate: sc-2293, SW480 cell lysate: sc-2219 or PANC-1 whole cell lysate: sc-364380.

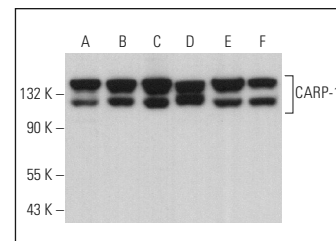
RECOMMENDED SUPPORT REAGENTS

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.

DATA



CARP-1 (E-4): sc-515629. Western blot analysis of CARP-1 expression in MDA-MB-231 (A), T-47D (B), SW480 (C), PANC-1 (D) and DU 145 (E) whole cell lysates and HeLa nuclear extract (F).



CARP-1 (E-4): sc-515629. Western blot analysis of CARP-1 expression in MDA-MB-231 (A), T-47D (B), SW480 (C), PC-12 (D) and COLO 205 (E) whole cell lysates and HeLa nuclear extract (F). Detection reagent used: m-IgG κ BP-HRP: sc-516102.

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.