SANTA CRUZ BIOTECHNOLOGY, INC.

RSRC2 (D-3): sc-515073

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Esophageal squamous cell carcinoma (ESCC) is cancer of the flat cells lining the esophagus, and is currently the ninth most frequent cancer in the world. While environmental risk factors, such as alcohol drinking and cigarette smoking, increase chances of ESCC, several genes are believed to be involved in the origin and/or progression of ESCC. The proteins encoded by these genes include p53, DCC, DEC1, DLEC1, RSRC2, p16 and TGFβ RII. RSRC2 (arginine/serine-rich coiled-coil protein 2) is a 434 amino acid protein that is believed to function as a transcription factor involved in cell proliferation. Expressed ubiquitously and localized to the nucleus, RSRC2 may serve as a tumor suppressor of esophageal cancer. Overexpression of RSRC2 in an ESCC cell line inhibits cell proliferation, while the loss of RSRC2 is associated with tumor progression. This suggests that RSRC2 is a potential target for esophageal cancer therapy. RSRC2 is expressed as two isoforms produced by alternative splicing.

REFERENCES

1. Jiang, W., et al. 1992. Amplification and expression of the human cyclin D gene in esophageal cancer. Cancer Res. 52: 2980-2983.
2. Lim, J., et al. 2006. A protein-protein interaction network for human inherited ataxias and disorders of Purkinje cell degeneration. Cell 125: 801-814.
3. Kurehara, H., et al. 2007. A novel gene, RSRC2, inhibits cell proliferation and affects survival in esophageal cancer patients. Int. J. Oncol. 30: 421-428.

CHROMOSOMAL LOCATION

Genetic locus: RSRC2 (human) mapping to 12q24.31; Rsrc2 (mouse) mapping to 5 F.

SOURCE

RSRC2 (D-3) is a mouse monoclonal antibody raised against amino acids 275-434 mapping at the C-terminus of RSRC2 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.

RSRC2 (D-3) is available conjugated to agarose (sc-515073 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515073 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515073 PE), fluorescein (sc-515073 FITC), Alexa Fluor® 488 (sc-515073 AF488), Alexa Fluor® 546 (sc-515073 AF546), Alexa Fluor® 594 (sc-515073 AF594) or Alexa Fluor® 647 (sc-515073 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515073 AF680) or Alexa Fluor® 790 (sc-515073 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

RSRC2 (D-3) is recommended for detection of RSRC2 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 RSRC2 siRNA (h): sc-95973, RSRC2 siRNA (m): sc-153161, RSRC2 shRNA Plasmid (h): sc-95973-SH, RSRC2 shRNA Plasmid (m): sc-153161-SH, RSRC2 shRNA (h) Lentiviral Particles: sc-95973-V and RSRC2 shRNA (m) Lentiviral Particles: sc-153161-V.

Molecular Weight of RSRC2 isoform 1: 51 kDa.

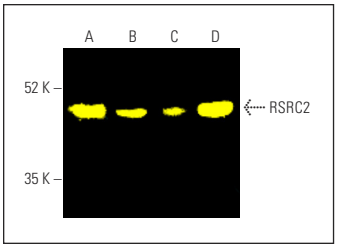
Molecular Weight of RSRC2 isoform 2: 45 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or NIH/3T3 whole cell lysate: sc-2210.

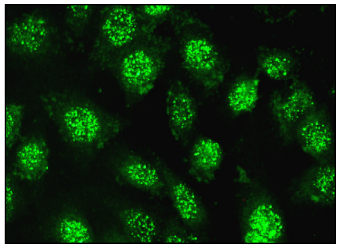
RECOMMENDED SUPPORT REAGENTS

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.

DATA



RSRC2 (D-3): sc-515073. Fluorescent western blot analysis of RSRC2 expression in NIH/3T3 (**A**), SH-SY5Y (**B**), K-562 (**C**) and Jurkat (**D**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 488: sc-516176.



RSRC2 (D-3): sc-515073. Immunofluorescence staining of formalin-fixed SW480 cells showing nuclear speckles localization.

SELECT PRODUCT CITATIONS

1. Zou, M., et al. 2020. Transcriptional regulation of CD40 expression by 4 ribosomal proteins via a functional SNP on a disease-associated CD40 locus. Genes 11: 1526.

RESEARCH USE

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