

## RSRC2 (P-13): sc-132812

### 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 TGF $\beta$  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

- Jiang, W., et al. 1992. Amplification and expression of the human cyclin D gene in esophageal cancer. *Cancer Res.* 52: 2980-2983.
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- 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.
- Hoshino, I., et al. 2008. Role of histone deacetylase inhibitor in adenovirus-mediated p53 gene therapy in esophageal cancer. *Anticancer Res.* 28: 665-671.
- Cummings, L.C. and Cooper, G.S. 2008. Descriptive epidemiology of esophageal carcinoma in the Ohio cancer registry. *Cancer Detect. Prev.* 32: 87-92.
- Lyrnonis, I.D., et al. 2008. K-ras mutation, HPV infection and smoking or alcohol abuse positively correlate with esophageal squamous carcinoma. *Pathol. Oncol. Res.* 14: 267-273.

### CHROMOSOMAL LOCATION

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

### SOURCE

RSRC2 (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RSRC2 of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132812 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

RSRC2 (P-13) is recommended for detection of RSRC2 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with RSRC1.

RSRC2 (P-13) is also recommended for detection of RSRC2 isoforms 1 and 2 in additional species, including equine, canine and porcine.

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.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

### 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



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Try **RSRC2 (D-3): sc-515073**, our highly recommended monoclonal alternative to RSRC2 (P-13).