

## RISC (L-17): sc-55753

### BACKGROUND

Serine carboxypeptidases are members of the  $\alpha/\beta$  hydrolase fold superfamily that participate, through three catalytic sites, in the hydrolysis of C-terminal residues in a variety of proteins. RISC (retinoid-inducible serine carboxypeptidase), also known as SCPEP1 (Serine carboxypeptidase 1) or SCP1, is a 452 amino acid secreted protein that accumulates around the nuclear periphery and is thought to localize to lysosomes. As one of several members of the peptidase S10 family, RISC may be involved in maintaining both vascular wall and kidney homeostasis by deactivating endothelin (ET), a strong vasoconstrictor and mitogen. Two isoforms of RISC exist due to alternative splicing events.

### REFERENCES

- Holmquist, M. 2000.  $\alpha/\beta$ -hydrolase fold enzymes: structures, functions and mechanisms. *Curr. Protein Pept. Sci.* 1: 209-235.
- Chen, J., Streb, J.W., Maltby, K.M., Kitchen, C.M. and Miano, J.M. 2001. Cloning of a novel retinoid-inducible serine carboxypeptidase from vascular smooth muscle cells. *J. Biol. Chem.* 276: 34175-34181.
- Mima, J., Suzuki, H., Takahashi, M. and Hayashi, R. 2002. Overexpression and functional characterization of a serine carboxypeptidase inhibitor (I(C)) from *Saccharomyces cerevisiae*. *J. Biochem.* 132: 967-973.
- Potokina, E., Prasad, M., Malysheva, L., Röder, M.S. and Graner, A. 2006. Expression genetics and haplotype analysis reveal *cis* regulation of serine carboxypeptidase I (Cxp1), a candidate gene for malting quality in barley (*Hordeum vulgare L.*). *Funct. Integr. Genomics* 6: 25-35.
- Lee, T.H., Streb, J.W., Georger, M.A. and Miano, J.M. 2006. Tissue expression of the novel serine carboxypeptidase Scpep1. *J. Histochem. Cytochem.* 54: 701-711.

### CHROMOSOMAL LOCATION

Genetic locus: SCPEP1 (human) mapping to 17q22.

### SOURCE

RISC (L-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RISC 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-55753 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

### APPLICATIONS

RISC (L-17) is recommended for detection of RISC of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

RISC (L-17) is also recommended for detection of RISC in additional species, including canine and porcine.

Suitable for use as control antibody for RISC siRNA (h): sc-62948, RISC shRNA Plasmid (h): sc-62948-SH and RISC shRNA (h) Lentiviral Particles: sc-62948-V.

Molecular Weight of RISC precursor: 51 kDa.

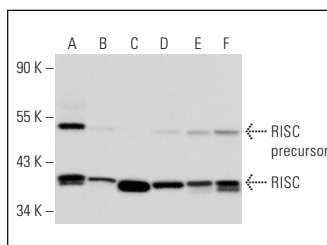
Molecular Weight of RISC mature form: 35 kDa.

Positive Controls: human bladder extract: sc-363751, A-431 whole cell lysate: sc-2201 or HeLa whole cell lysate: sc-2200.

### 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™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 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™ Mounting Medium: sc-24941.

### DATA



RISC (L-17): sc-55753. Western blot analysis of RISC expression in human bladder (A) and human esophagus (B) tissue extracts and A-431 (C), U-251-MG (D), MCF7 (E) and HeLa (F) whole cell lysates.

### RESEARCH USE

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