

RRS1 (S-17): sc-87413

BACKGROUND

RRS1 [RRS1 ribosome biogenesis regulator homolog (*S. cerevisiae*)], also known as KIAA0112, ribosome biogenesis regulatory protein homolog, regulator of ribosome synthesis 1, ribosome biogenesis regulatory protein RRS1 homolog or RRR, is a 365 amino acid protein belonging to the RRS1 family. RRS1 shows nucleolar localization and is involved in both ribosome biogenesis and chromosome congression. Recent studies indicate that in the absence of RRS1, cells experience mitotic delay due to abnormal spindle organization and chromosome alignment. The gene encoding RRS1 maps to human chromosome 8q13.1. Consisting of nearly 146 million base pairs, chromosome 8 encodes over 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that map to chromosome 8.

REFERENCES

1. Tsuno, A., et al. 2000. RRS1, a conserved essential gene, encodes a novel regulatory protein required for ribosome biogenesis in *Saccharomyces cerevisiae*. *Mol. Cell. Biol.* 20: 2066-2074.
2. Kashino, G., et al. 2001. Preferential expression of an intact WRN gene in Werner syndrome cell lines in which a normal chromosome 8 has been introduced. *Biochem. Biophys. Res. Commun.* 289: 111-115.
3. Andersen, J.S., et al. 2002. Directed proteomic analysis of the human nucleolus. *Curr. Biol.* 12: 1-11.
4. Selicorni, A., et al. 2002. Cytogenetic mapping of a novel locus for type II Waardenburg syndrome. *Hum. Genet.* 110: 64-67.
5. McQueen, M.B., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. *Am. J. Hum. Genet.* 77: 582-595.
6. Andersen, J.S., et al. 2005. Nucleolar proteome dynamics. *Nature* 433: 77-83.

CHROMOSOMAL LOCATION

Genetic locus: RRS1 (human) mapping to 8q13.1.

SOURCE

RRS1 (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RRS1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-87413 P, (100 µg 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.

APPLICATIONS

RRS1 (S-17) is recommended for detection of RRS1 of 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).

RRS1 (S-17) is also recommended for detection of RRS1 in additional species, including bovine and porcine.

Suitable for use as control antibody for RRS1 siRNA (h): sc-77521, RRS1 shRNA Plasmid (h): sc-77521-SH and RRS1 shRNA (h) Lentiviral Particles: sc-77521-V.

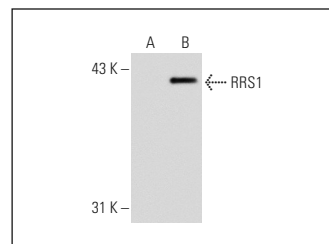
Molecular Weight of RRS1: 41 kDa.

Positive Controls: HL-60 nuclear extract: sc-2147.

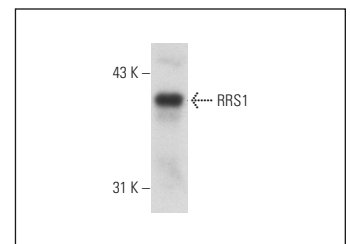
RECOMMENDED SECONDARY REAGENTS

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) 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



RRS1 (S-17): sc-87413. Western blot analysis of RRS1 expression in non-transfected: sc-117752 (A) and mouse RRS1 transfected: sc-110288 (B) 293T whole cell lysates.



RRS1 (S-17): sc-87413. Western blot analysis of RRS1 expression in HL-60 nuclear extract.

RESEARCH USE

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



Try **RRS1 (H-5): sc-515462** or **RRS1 (B-7): sc-393746**, our highly recommended monoclonal alternatives to RRS1 (S-17).