RB1CC1 (D-17): sc-22709

SANTA CRUZ®

BIOTECHNOLOGY

The Power to Question

BACKGROUND

The protein RB1CC1 (retinoblastoma 1 (RB1)-inducible coiled-coil 1) is a key regulator of the tumor-suppressor gene RB1. RB1CC1 is abundantly expressed in human musculoskeletal and cultured osteosarcoma cells in amounts closely correlated to RB1 expression. Both the RB1CC1 and RB1 genes are preferentially coexpressed and contribute to the maturation of human embryonic musculoskeletal cells. RB1CC1 is localized in the nucleus and may be a transcription factor indicated by the presence of its nuclear localization signal, leucine zipper motif and coiled-coil structure (a ubiquitous protein folding and assembly motif made of α helices wrapped around each other to form a supercoil). The RB1CC1 gene has been identified in a screen for genes involved in multi-drug resistance to anticancer agents and is frequently mutated in breast cancer, showing characteristics of a tumor-suppressor gene. In mouse, RB1CC1 protein is highly expressed in heart and testis, with lower levels detected in lung and spleen.

REFERENCES

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2. Chano, T., Ikegawa, S., Kontani, K., Okabe, H., Baldini, N. and Saeki, Y. 2002. Identification of RB1CC1, a novel human gene that can induce RB1 in various human cells. Oncogene 21: 1295-1298.

3. Chano, T., Saeki, Y., Serra, M., Matsumoto, K. and Okabe, H. 2002. Preferential expression of RB1-inducible coiled-coil 1 in terminal differentiated musculoskeletal cells. Am. J. Pathol. 161: 359-364.

4. Yu, Y. 2002. Coiled-coils: stability, specificity, and drug delivery potential. Adv. Drug Deliv. Rev. 54: 1113.

5. Chano, T., Ikegawa, S., Saito-Ohara, F., Inazawa, J., Mabuchi, A., Saeki, Y. and Okabe, H. 2002. Isolation, characterization and mapping of the mouse and human RB1CC1 genes. Gene 291: 29-34.

CHROMOSOMAL LOCATION

Genetic locus: RB1CC1 (human) mapping to 8q11.23; Rb1cc1 (mouse) mapping to 1 A1.

SOURCE

RB1CC1 (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RB1CC1 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-22709 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

RB1CC1 (D-17) is recommended for detection of RB1CC1 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).

RB1CC1 (D-17) is also recommended for detection of RB1CC1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for RB1CC1 siRNA (h): sc-38211, RB1CC1 siRNA (m): sc-38212, RB1CC1 shRNA Plasmid (h): sc-38211-SH, RB1CC1 shRNA Plasmid (m): sc-38212-SH, RB1CC1 shRNA (h) Lentiviral Particles: sc-38211-V and RB1CC1 shRNA (m) Lentiviral Particles: sc-38212-V.

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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.