

DRR1 (N-17): sc-99382

BACKGROUND

The chromosomal band of 3p21 is frequently deleted in several types of tumors, suggesting that this region may harbor multiple tumor suppressor genes. The DRR1 (down-regulated in renal cell carcinoma 1) gene, also known as FAM107A and Protein TU3A, is located in this critical chromosomal region and encodes a 144 amino acid nuclear protein that contains a coiled region, suggesting that the protein may function to regulate gene transcription and signal transduction. With the exception of peripheral blood cells, DRR1 is expressed in all normal tissues, but shows significant loss of expression in renal cell carcinomas and frequent loss of expression in cervical, gastric, ovarian and nonsmall cell lung cancers. Transfection of DRR1 mRNA into cancer cell lines inhibits cell growth and proliferation, supporting the evidence that the gene functions as an important tumor suppressor. There are two isoforms of DRR1 that exist as a result of alternative splicing events.

REFERENCES

1. Yamato, T., et al. 1999. Isolation and characterization of the novel gene, TU3A, in a commonly deleted region on 3p14.3→p14.2 in renal cell carcinoma. *Cytogenet. Cell Genet.* 87: 291-295.
2. Lerman, M.I., et al. 2000. The 630-kb lung cancer homozygous deletion region on human chromosome 3p21.3: identification and evaluation of the resident candidate tumor suppressor genes. The International Lung Cancer Chromosome 3p21.3 Tumor Suppressor Gene Consortium. *Cancer Res.* 60: 6116-6133.
3. Wang, L., et al. 2000. Loss of expression of the DRR1 gene at chromosomal segment 3p21.1 in renal cell carcinoma. *Genes Chromosomes Cancer* 27: 1-10.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608295. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: FAM107A (human) mapping to 3p14.3; Fam107a (mouse) mapping to 14 A1.

SOURCE

DRR1 (N-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of DRR1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99382 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

DRR1 (N-17) is recommended for detection of DRR1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

DRR1 (N-17) is also recommended for detection of DRR1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DRR1 siRNA (h): sc-77912, DRR1 shRNA Plasmid (h): sc-77912-SH and DRR1 shRNA (h) Lentiviral Particles: sc-77912-V.

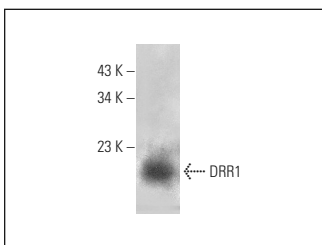
Molecular Weight of DRR1: 18 kDa.

Positive Controls: human cerebral cortex tissue extract.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



DRR1 (N-17): sc-99382. Western blot analysis of DRR1 expression in human cerebral cortex tissue extract.

RESEARCH USE

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

MONOS
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Try **DRR1 (C-6): sc-374618** or **DRR1 (D-10): sc-390268**, our highly recommended monoclonal alternatives to DRR1 (N-17).