**BACKGROUND**

Ribonucleotide reductase is essential for the production and maintenance of the level of deoxynucleoside triphosphates (dNTP's) required for DNA synthesis. It is an enzymatic complex consisting of two nonidentical subunits, R1 and R2, which are inactive separately. R1, the larger subunit, contains allosteric regulatory sites. R2 is the limiting factor of the catalytic activity of the ribonucleotide reductase enzymatic complex. R2 expression is strictly correlated to the S-phase of the cell cycle, whereas R1 remains constant throughout all phases of the cell cycle. Ribonucleotide reductase appears to be specifically involved in nucleotide excision repair, since both the R1 and R2 subunits are induced in response to UV light in a dose-dependent manner.

**CHROMOSOMAL LOCATION**

Genetic locus: RRM1 (human) mapping to 11p15.4; Rrm1 (mouse) mapping to 7 E3.

**SOURCE**

R1 (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of R1 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-11733 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

**APPLICATIONS**

R1 (T-16) is recommended for detection of R1 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).

R1 (T-16) is also recommended for detection of R1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for R1 siRNA (h): sc-37640, R1 siRNA (m): sc-37641, R1 shRNA Plasmid (h): sc-37640-SH, R1 shRNA Plasmid (m): sc-37641-SH, R1 shRNA (h) Lentiviral Particles: sc-37640-V and R1 shRNA (m) Lentiviral Particles: sc-37641-V.

Molecular Weight of R1: 94 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Ramos cell lysate: sc-2216 or R1 (h3): 293T Lysate: sc-158910.

**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.

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


Try R1 (A-10): sc-377415 or R1 (E-7): sc-377426, our highly recommended monoclonal alternatives to R1 (T-16).