SANTA CRUZ BIOTECHNOLOGY, INC.

Rad18 (H-77): sc-98946

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The RING-type zinc finger protein Rad18 is essential in post-replication repair of damaged DNA and contributes to the maintenance of genomic stability. Rad18 maintains chromosomal DNA with the Rad54-dependent DNA repair pathway and recruits ubiquitin-conjugating enzymes in the Rad6 pathway. Rad18 functions in gap-filling of a daughter strand on replication of damaged DNA and is localized in the nucleus.

REFERENCES

1. Tateishi, S., Sakuraba, Y., Masuyama, S., Inoue, H. and Yamaizumi, M. 2000. Dysfunction of human Rad18 results in defective postreplication repair and hypersensitivity to multiple mutagens. Proc. Natl. Acad. Sci. USA 97: 7927-7932.
2. Xin, H., Lin, W., Sumanasekera, W., Zhang, Y., Wu, X. and Wang, Z. 2000. The human Rad18 gene product interacts with HHR6A and HHR6B. Nucleic Acids Res. 28: 2847-2854.

CHROMOSOMAL LOCATION

Genetic locus: RAD18 (human) mapping to 3p25.3; Rad18 (mouse) mapping to 6 E3.

SOURCE

Rad18 (H-77) is a rabbit polyclonal antibody raised against amino acids 8-82 mapping near the N-terminus of Rad18 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.

STORAGE

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

APPLICATIONS

Rad18 (H-77) is recommended for detection of Rad18 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).

Rad18 (H-77) is also recommended for detection of Rad18 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Rad18 siRNA (h): sc-72142, Rad18 siRNA (m): sc-72143, Rad18 shRNA Plasmid (h): sc-72142-SH, Rad18 shRNA Plasmid (m): sc-72143-SH, Rad18 shRNA (h) Lentiviral Particles: sc-72142-V and Rad18 shRNA (m) Lentiviral Particles: sc-72143-V.

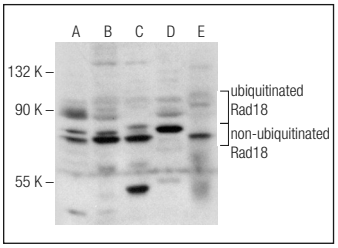
Molecular Weight of Rad18: 56 kDa.

Positive Controls: HL-60 nuclear extract: sc-2147, MCF7 nuclear extract: sc-2149 or K-562 nuclear extract: sc-2130.

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



Rad18 (H-77): sc-98946. Western blot analysis of Rad18 expression in HeLa (**A**), HEL 92.1.7 (**B**), K-562 (**C**), MCF7 (**D**) and HL-60 (**E**) nuclear extracts.

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.