SANTA CRUZ BIOTECHNOLOGY, INC.

Rad18 (yD-15): sc-28505

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Rad6-Rad18 ubiquitin-conjugating enzyme complex of *Saccharomyces cerevisiae* promotes replication through DNA lesions via translesion synthesis (TLS) by DNA polymerases zeta (Pol zeta) and Pol eta, and postreplicational repair mediated by the Mms2-Ubc13 ubiquitin-conjugating enzyme and Rad5. Rad18 and Rad6 genes are required to initiate post-replication repair (PRR) are also involved in the prevention of mutations by 7,8-dihydro-8-oxoguanine (8-oxoG), an abundant and mutagenic lesion produced in DNA exposed to free radicals and reactive oxygen species.

REFERENCES

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3. Kiakos, K., et al. 2002. *Saccharomyces cerevisiae* RAD5 influences the excision repair of DNA minor groove adducts. J. Biol. Chem. 277: 44576-44581.
4. Hishida, T., et al. 2002. *Saccharomyces cerevisiae* MGS1 is essential in strains deficient in the RAD6-dependent DNA damage tolerance pathway. Embo. J. 21: 2019-2029.
5. Podlaska, A., et al. 2003. The link between 20S proteasome activity and post-replication DNA repair in *Saccharomyces cerevisiae*. Mol. Microbiol. 49: 1321-1332.
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7. Saffran, W.A., et al. 2004. DNA repair defects channel interstrand DNA cross-links into alternate recombinational and error-prone repair pathways. J. Biol. Chem. 279: 36462-36469.
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SOURCE

Rad18 (yD-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Rad18 of *Saccharomyces cerevisiae* 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-28505 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Rad18 (yD-15) is recommended for detection of Rad18 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

STORAGE

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

PROTOCOLS

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