

**RPA2 polyclonal antibody**

Catalog: BS6930

Host: Rabbit

Reactivity: Human, Mouse, Rat

**BackGround:**

As part of the heterotrimeric replication protein A complex (RPA/RP-A, binds and stabilizes single-stranded DNA intermediates, that form during DNA replication or upon DNA stress. It prevents their reannealing and in parallel, recruits and activates different proteins and complexes involved in DNA metabolism. Thereby, it plays an essential role both in DNA replication and the cellular response to DNA damage. In the cellular response to DNA damage, the RPA complex controls DNA repair and DNA damage checkpoint activation. Through recruitment of ATRIP activates the ATR kinase a master regulator of the DNA damage response. It is required for the recruitment of the DNA double-strand break repair factors RAD51 and RAD52 to chromatin in response to DNA damage. Also recruits to sites of DNA damage proteins like XPA and XPG that are involved in nucleotide excision repair and is required for this mechanism of DNA repair. Plays also a role in base excision repair (BER probably through interaction with UNG. Also recruits SMARCAL1/HARP, which is involved in replication fork restart, to sites of DNA damage. May also play a role in telomere maintenance.

**Product:**

1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

**Molecular Weight:**

32kDa

**Swiss-Prot:**

P15927

**Purification&Purity:**

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

**Applications:**

WB,1:500 - 1:2000|IHC,1:50 - 1:200|IP,1:50 - 1:200|ChIP,1:50 - 1:200

**Storage&Stability:**

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

**Category:**

Polyclonal Antibodies

**DATA:**

Western blot analysis of extracts of various cell lines, using RPA2 antibody at 1:1000 dilution. 293T cells were treated by UV at room temperature for 15-30 minutes. Secondary antibody: HRP Goat Anti-Rabbit IgG at 1:10000 dilution. Lysates/proteins: 25ug per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit. Exposure time: 10s.

Immunohistochemistry of paraffin-embedded human kidney cancer using RPA2 Antibody at dilution of 1:100. Perform microwave antigen retrieval with 10 mM PBS buffer pH 7.2 before commencing with IHC staining protocol.

Immunoprecipitation analysis of 200ug extracts of NIH/3T3 cells using 3ug RPA2 antibody. Western blot was performed from the immunoprecipitate using RPA2 antibody at a dilution of 1:1000.

Chromatin immunoprecipitation analysis of extracts of mouse spleen cells, using RPA2 Rabbit pAb antibody and rabbit IgG. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.

**Note:**

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

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