abcam

Product datasheet

Anti-RPA32/RPA2 (phospho S4 + S8) antibody [BL-165-5F1] ab243866

Recombinant

3 References 4 Images

Overview

Product name	Anti-RPA32/RPA2 (phospho S4 + S8) antibody [BL-165-5F1]
Description	Rabbit monoclonal [BL-165-5F1] to RPA32/RPA2 (phospho S4 + S8)
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP, ICC
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide corresponding to Human RPA32/RPA2 (phospho S4 + S8). A portion surrounding phosphorylated serines at positions 4 and 8 (NP_002937.1). Database link: **P15927**
Positive control	ICC: HeLa cells treated with etoposide. IP: HeLa whole cell lysate treated with etoposide. WB: HeLa cell lysate treated with etoposide.
General notes	This product is sold under License from Bethyl Laboratories, Inc.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.8 Preservative: 0.09% Sodium azide Constituent: 99% Borate buffered saline
Purification notes	Recombinant antibody was purified from cell culture supernatant.
Clonality	Monoclonal
Clone number	BL-165-5F1
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab243866 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000.
IP		Use at an assay dependent concentration. Use 5µl/0.5mg lysate.
ICC		1/5000.

Target

Function

Required for DNA recombination, repair and replication. The activity of RP-A is mediated by single-stranded DNA binding and protein interactions.
Functions as component of the alternative replication protein A complex (aRPA). aRPA binds single-stranded DNA and probably plays a role in DNA repair; it does not support chromosomal DNA replication and cell cycle progression through S-phase. In vitro, aRPA cannot promote efficient priming by DNA polymerase alpha but supports DNA polymerase delta synthesis in the presence of PCNA and replication factor C (RFC), the dual incision/excision reaction of nucleotide excision repair and RAD51-dependent strand exchange.

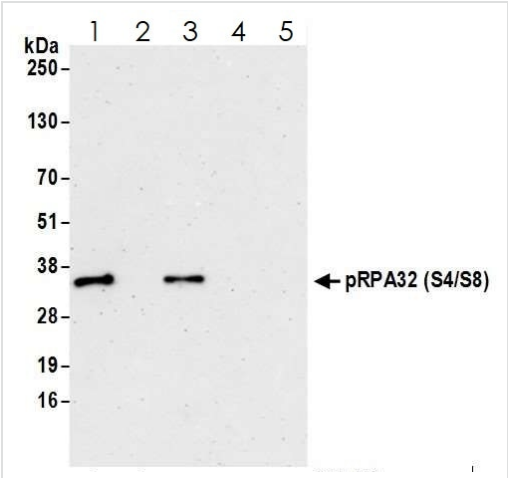
Post-translational modifications

Phosphorylated in a cell-cycle-dependent manner (from the S phase until mitosis).
Phosphorylated by ATR upon DNA damage, which promotes its translocation to nuclear foci. Can be phosphorylated in vitro by PRKDC/DNA-PK in the presence of Ku and DNA, and by CDK1.

Cellular localization

Nucleus. Nucleus > PML body. Also present in PML nuclear bodies. Redistributes to discrete nuclear foci upon DNA damage.

Images



Immunoprecipitation - Anti-RPA32/RPA2 (phospho S4 + S8) antibody [BL-165-5F1] (ab243866)

RPA32/RPA2 was immunoprecipitated from HeLa whole cell lysate (0.5 mg per IP reaction, 20% loaded) with ab243866 at 5 µg per reaction. Western blot was performed on the immunoprecipitate using ab243866 at 1/1000 dilution.

Lane 1: ab243866 IP in HeLa whole cell lysate treated with etoposide

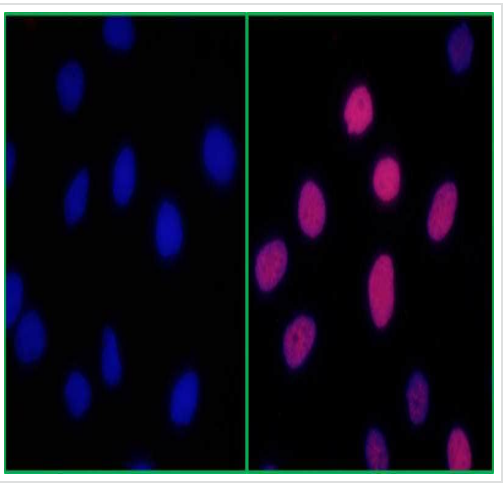
Lane 2: ab243866 IP in HeLa whole cell lysate mock-treated

Lane 3: rabbit anti-RPA32 antibody IP in HeLa whole cell lysate treated with etoposide

Lane 4: rabbit anti-RPA32 antibody IP in HeLa whole cell lysate mock-treated

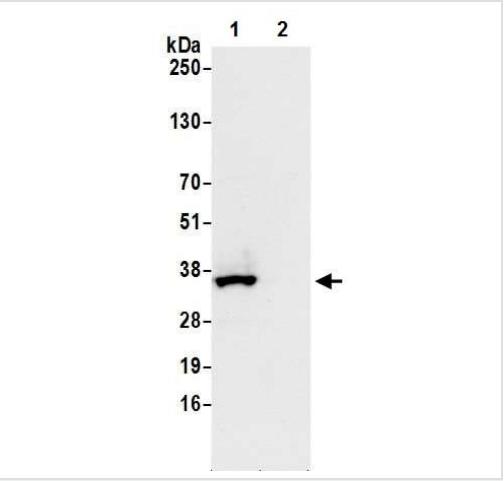
Lane 5: Control IgG in HeLa whole cell lysate treated with etoposide

Detection: Chemiluminescence with an exposure time of 3 minutes



Immunocytochemistry - Anti-RPA32/RPA2 (phospho S4 + S8) antibody [BL-165-5F1] (ab243866)

NBF-fixed HeLa cells treated with etoposide (right) or mock treated (left) stained for RPA32/RPA2 (phospho S4 + S8) using ab243866 at 1/5000 dilution. Goat Anti-Rabbit IgG H&L (DyLight® 594) (**ab96885**) was used as a secondary antibody. Counterstained with DAPI (blue).



Western blot - Anti-RPA32/RPA2 (phospho S4 + S8) antibody [BL-165-5F1] (ab243866)

Western blot analysis of pRPA32 (S4/S8) using ab243866 at 1/1000 dilution.

Lane 1: HeLa cell lysate treated with 100 µM etoposide for 4 hours.

Lane 2: HeLa cell lysate negetive treatment.

A HRP-conjugated goat anti-rabbit IgG was used as the secondary antibody. Detection: Chemiluminescence with an exposure time of 10 seconds.

Anti-RPA32/RPA2 (phospho S4 + S8) antibody [BL-165-5F1] (ab243866)

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