

Anti-RPA32/RPA2 antibody [9H8] ab2175

★★★★★ [11 Abreviews](#) [223 References](#) [5 Images](#)

Overview

Product name	Anti-RPA32/RPA2 antibody [9H8]
Description	Mouse monoclonal [9H8] to RPA32/RPA2
Host species	Mouse
Tested applications	Suitable for: Flow Cyt, WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Full length native protein (purified) corresponding to Human RPA32/RPA2. BALB/C mice were injected with purified human RPA protein
Positive control	WB: TE 671, SK N BE and HeLa whole cell lysates. IHC-P: Human tonsil tissue. Flow Cyt: HeLa cells.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.3 Preservative: 0.05% Sodium azide Constituent: 1% BSA
Purity	IgG fraction
Clonality	Monoclonal
Clone number	9H8
Myeloma	unknown
Isotype	IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab2175 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
Flow Cyt	★★★★★ (1)	Use 1µg for 10 ⁶ cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB	★★★★★ (2)	Use at an assay dependent concentration. Predicted molecular weight: 32 kDa.
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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

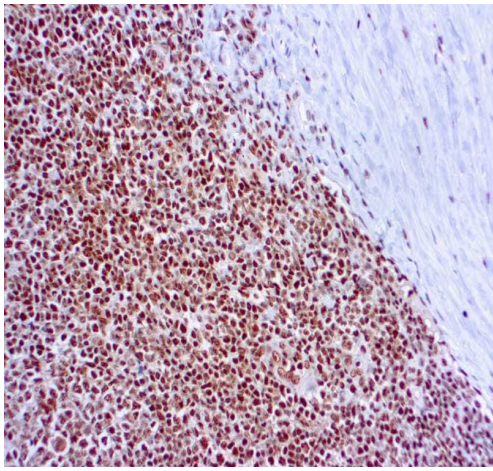
Phosphorylated in a cell-cycle-dependent manner (from the S phase until mitosis).

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

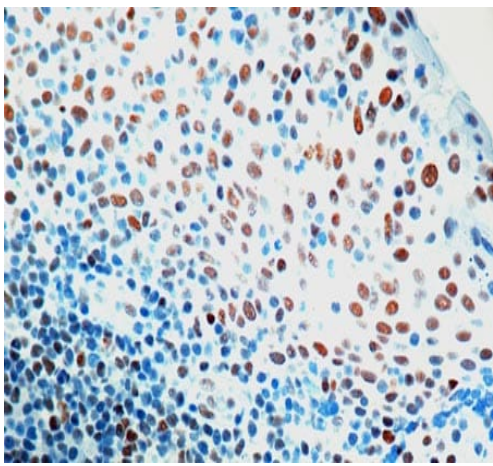
Nucleus. Nucleus > PML body. Also present in PML nuclear bodies. Redistributes to discrete nuclear foci upon DNA damage.

Images



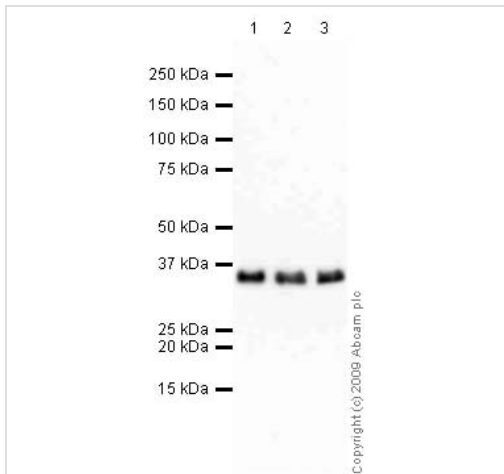
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RPA32/RPA2 antibody [9H8] (ab2175)

Formalin-fixed, paraffin-embedded human tonsil tissue stained for RPA32/RPA2 using ab2175 at 1/50 dilution in immunohistochemical analysis. Antigen retrieval with citrate buffer pH 6.0



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RPA32/RPA2 antibody [9H8] (ab2175)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human tonsil tissue, staining RPA32/RPA2 with ab2175. Staining was detected using DAB.



Western blot - Anti-RPA32/RPA2 antibody [9H8]
(ab2175)

All lanes : Anti-RPA32/RPA2 antibody [9H8] (ab2175) at 5 µg/ml

Lane 1 : TE 671 (Human Rhabdomyosarcoma) Whole Cell Lysate

Lane 2 : SK N BE (Human neuroblastoma) Whole Cell Lysate

Lane 3 : HeLa (Human epithelial carcinoma cell line) Nuclear Lysate

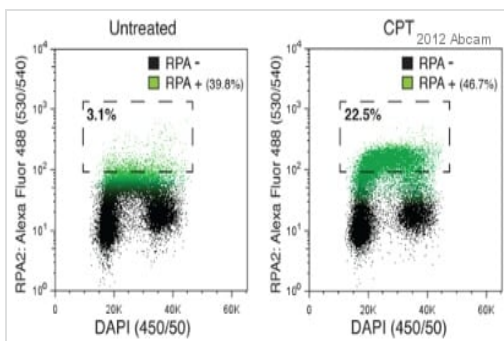
Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Predicted band size: 32 kDa

Observed band size: 32 kDa



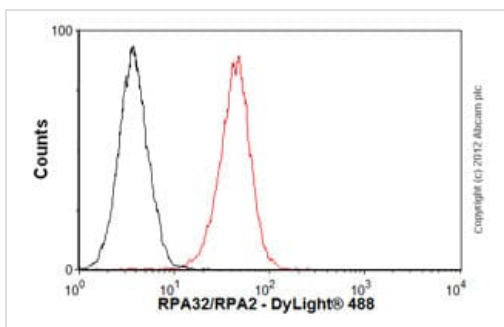
Flow Cytometry - Anti-RPA32/RPA2 antibody [9H8]
(ab2175)

This image is courtesy of an anonymous Abreview

Anti-RPA32/RPA2 antibody [9H8] (ab2175) is used to measure DNA Double-Stranded Breaks resection in U2OS cells +/- Camptotechnin (CPT).

ab2175 is used at 1/200 dilution in 1xPBS + 0.2% Triton X-100 for 1 hour at 25°C.

Secondary antibody: anti-mouse Molecular Probes Alexa Fluor® 488 Conjugated at 1/200 dilution.



Flow Cytometry - Anti-RPA32/RPA2 antibody [9H8]
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Overlay histogram showing HeLa cells stained with ab2175 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab2175, 1µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) ([ab96879](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] ([ab91353](#), 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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