

**RPA32/RPA2 Antibody**  
**Purified Mouse Monoclonal Antibody (Mab)**  
**Catalog # AP52812****Specification**

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**RPA32/RPA2 Antibody - Product Information**

Application	WB, ICC, IP
Primary Accession	<a href="#">P15927</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Calculated MW	32 KDa

**RPA32/RPA2 Antibody - Additional Information****Gene ID** 6118**Other Names**

60S acidic ribosomal protein P1;AA409079;AI325195;AU020965;HSSB;ik:tdsubc\_2g1;M(2)21C;MGC137236;OTTHUMP00000004008;p32;p34;RCJMB04\_6d17 replication protein A2, 32kDa;REPA 2; REPA1;REPA2;Replication factor A protein 2;Replication protein A 32 kDa subunit; Replication protein A 32kDa subunit;Replication protein A 34 kDa subunit;Replication protein A;replication protein A1 (70kD);Replication Protein A2 (32kDa);Replication protein A2 32kD;Replication protein A2 32kDa;Replication protein A2;Replication protein A2, 32kDa;RF A;RF-A protein 2;Rf-A2;RFA;RFA2\_HUMAN;RP A;RP-A p32;RP-A p34;RP21C;RPA 2; RPA 32;RPA;RPA2;RPA32;RPA34;RPA70;RpLP1;RpP2;xx:tdsubc\_2g1;zgc:109822.

**Dilution**

WB~~1:2000

ICC~~1:200

IP~~1:500

**Format**

Purified mouse monoclonal antibody in PBS(pH 7.4) containing with 0.09% (W/V) sodium azide and 50% glycerol.

**Storage**

Store at -20 °C.Stable for 12 months from date of receipt

**RPA32/RPA2 Antibody - Protein Information****Name** RPA2**Synonyms** REPA2, RPA32, RPA34**Function**

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. Also plays 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. RPA stimulates 5'-3' helicase activity of BRIP1/FANCD1 (PubMed: <a href="http://www.uniprot.org/citations/17596542" target="\_blank">17596542</a>).

### Cellular Location

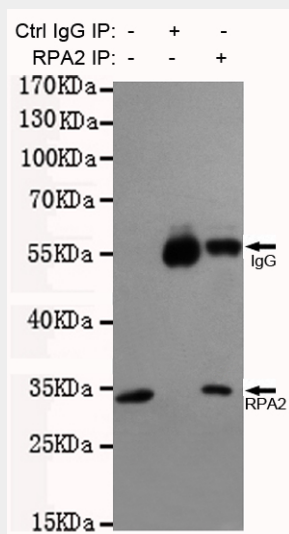
Nucleus. Nucleus, PML body. Note=Redistributes to discrete nuclear foci upon DNA damage in an ATR-dependent manner

### RPA32/RPA2 Antibody - Protocols

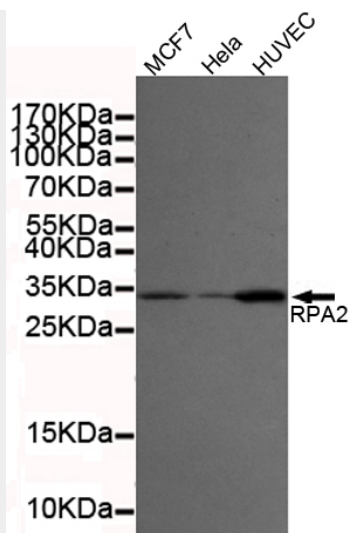
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

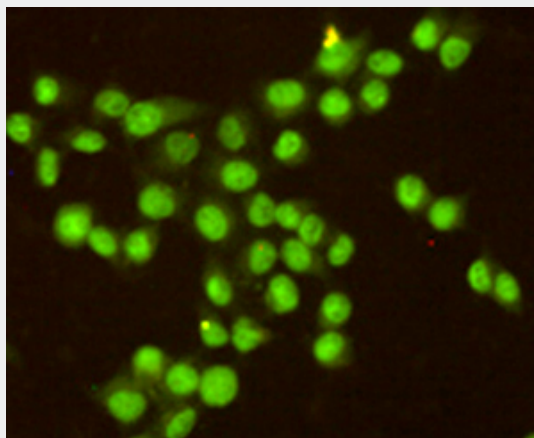
### RPA32/RPA2 Antibody - Images



Immunoprecipitation analysis of HeLa cell lysates using RPA32/RPA2 mouse mAb.



Western blot detection of RPA32/RPA2 in MCF7, HeLa and HUVEC cell lysates using RPA32/RPA2 mouse mAb (1:2000 diluted). Predicted band size: 32KDa. Observed band size: 32KDa. Exposure time: 20s.



Immunocytochemistry staining of HeLa cells fixed with -20°C Methanol and using anti-RPA32/RPA2 antibody (dilution 1:200).

#### **RPA32/RPA2 Antibody - 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. Through RFW3 may activate CHEK1 and play a role in replication checkpoint control. Also recruits SMARCA1/HARP, which is involved in replication fork restart, to sites of DNA damage. May also play a role in telomere maintenance.

#### **RPA32/RPA2 Antibody - References**

Erdile L.F.,et al.J. Biol. Chem. 265:3177-3182(1990).  
Ebert L.,et al.Submitted (MAY-2004) to the EMBL/GenBank/DDBJ databases.  
Gregory S.G.,et al.Nature 441:315-321(2006).  
Din S.,et al.Genes Dev. 4:968-977(1990).  
Dutta A.,et al.EMBO J. 11:2189-2199(1992).