

**RPA2 / RFA2 / RPA34 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS16176****Specification**

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**RPA2 / RFA2 / RPA34 Antibody - Product Information**

Application	<b>WB, IHC</b>
Primary Accession	<a href="#">P15927</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Calculated MW	<b>29kDa KDa</b>

**RPA2 / RFA2 / RPA34 Antibody - Additional Information****Gene ID** 6118**Other Names**

Replication protein A 32 kDa subunit, RP-A p32, Replication factor A protein 2, RF-A protein 2, Replication protein A 34 kDa subunit, RP-A p34, RPA2, REPA2, RPA32, RPA34

**Target/Specificity**

Human RPA2 / RFA2 / RPA34

**Reconstitution & Storage**

Aliquot and store at -20°C or -80°C. Avoid freeze-thaw cycles.

**Precautions**

RPA2 / RFA2 / RPA34 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**RPA2 / RFA2 / RPA34 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: <http://www.uniprot.org/citations/17596542> target="\_blank">17596542</a>).

#### Cellular Location

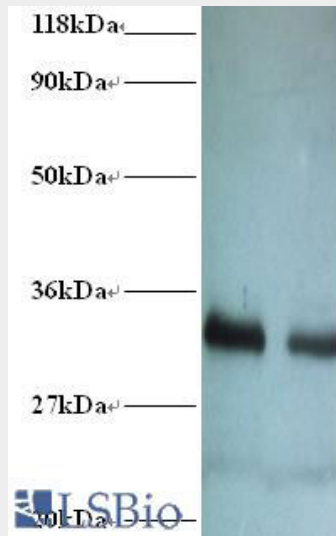
Nucleus. Nucleus, PML body. Note=Redistributes to discrete nuclear foci upon DNA damage in an ATR-dependent manner

#### RPA2 / RFA2 / RPA34 Antibody - Protocols

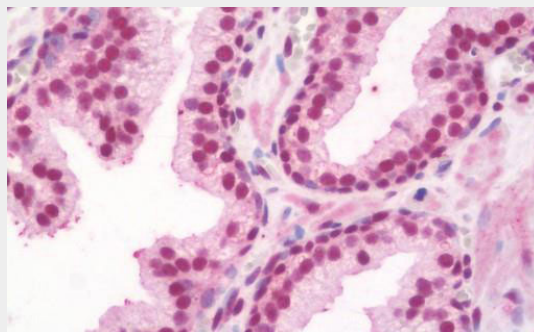
Provided below are standard protocols that you may find useful for product applications.

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

#### RPA2 / RFA2 / RPA34 Antibody - Images



Western blot of Replication protein A 32 kDa subunit antibody at 2 ug/ml.



Anti-RPA2 / RFA2 / RPA34 antibody IHC staining of human prostate.

### **RPA2 / RFA2 / RPA34 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 SMARCAL1/HARP, which is involved in replication fork restart, to sites of DNA damage. May also play a role in telomere maintenance.

### **RPA2 / RFA2 / RPA34 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).