

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

RPA2 / RFA2 / RPA34 Antibody - Product Information

Application	WB, IHC
Primary Accession	P15927
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	29kDa KDa

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.

Cellular Location

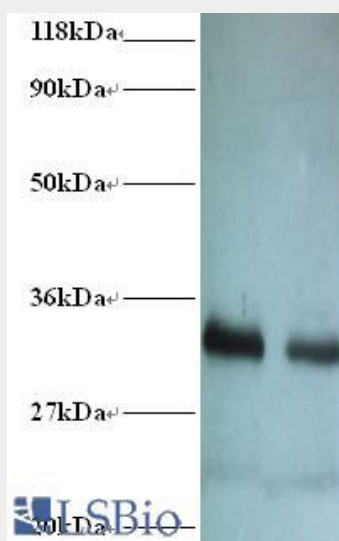
Nucleus. Nucleus, PML body. Note=Redistributes to discrete nuclear foci upon DNA damage in an ATR-dependent manner

RPA2 / RFA2 / RPA34 Antibody - Protocols

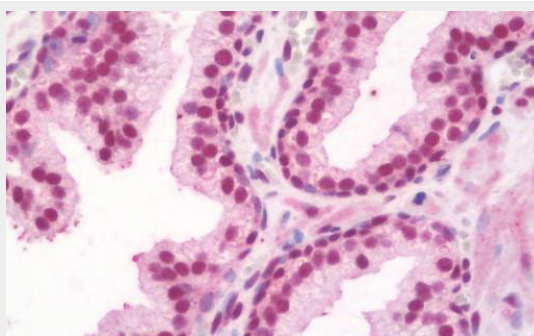
Provided below are standard protocols that you may find useful for product applications.

- [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).