

RPA32 Rabbit mAb

Catalog # AP76031

Product Information

Application	WB, IHC-P, FC, IP
Primary Accession	P15927
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	29247

Additional Information

Gene ID	6118
Other Names	RPA2
Dilution	WB~~1:500-1:1000 IHC-P~~N/A FC~~1:100-1:200 IP~~1:20
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	RPA2
Synonyms	REPA2, RPA32, RPA34
Function	<p>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</p>

(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:[17596542](https://pubmed.ncbi.nlm.nih.gov/17596542/)).

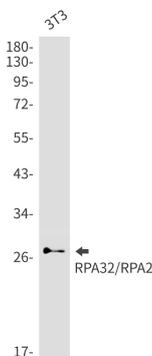
Cellular Location

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

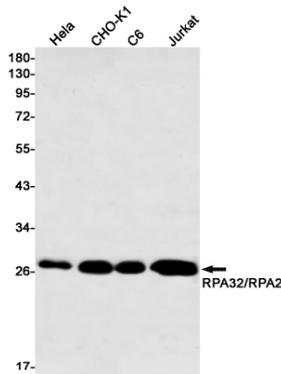
Background

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.

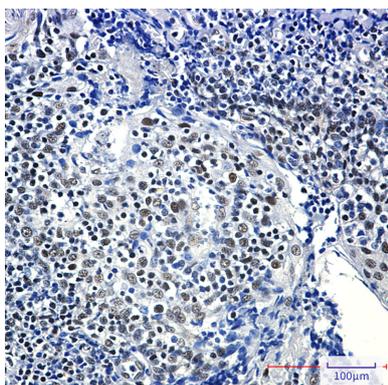
Images



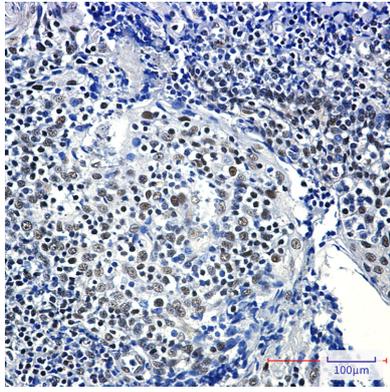
Western blot analysis of RPA32/RPA2 in 3T3 lysates using RPA32 antibody.



Western blot analysis of RPA32/RPA2 in HeLa, CHO-K1, C6, Jurkat lysates using RPA32/RPA2 antibody.



Immunohistochemistry analysis of paraffin-embedded Human tonsil using RPA32/RPA2 antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



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