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RFA2 Antibody

Rabbit mAb
Catalog # AP92103

Product Information

Application	WB, IHC, IP
Primary Accession	P15927
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	p32; p34; REPA2; Replication factor A protein 2; Rf-A2; RFA; RP-A p32; RP-A p34; RP21C; RPA; Rpa2; RPA32; RPA34; RpLP1; RpP2;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	29247

Additional Information

Dilution	WB 1:1000~1:5000 IHC 1:50~1:200 IP 1:30
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human RFA2
Description	Required for DNA recombination, repair and replication. The activity of RP-A is mediated by single-stranded DNA binding and protein interactions.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

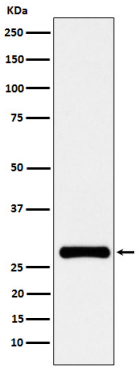
Name	RPA2
Synonyms	REPA2, RPA32, RPA34
Function	As part of the heterotrimeric replication protein A complex (RPA/RP-A), binds and stabilizes single-stranded DNA intermediates that form during DNA replication or upon DNA stress. It prevents their reannealing and in parallel, recruits and activates different 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/FANCJ (PubMed:17596542).

Cellular Location

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

Images



Western blot analysis of RFA2 expression in HeLa cell lysate.

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