Datasheet for ABIN6241400

anti-RPA1 antibody

3 Images

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Overview

Quantity:	100 µL
Target:	RPA1
Reactivity:	Human, Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This RPA1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunoprecipitation (IP), Immunocytochemistry (ICC)

Product Details

Immunogen:	Recombinant Protein

Target Details

Target:	RPA1
Alternative Name:	RPA70 (RPA1 Products)
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 (PubMed:< a href="http://www.uniprot.org/citations/9430682" target="_blank">9430682). 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

Target Details

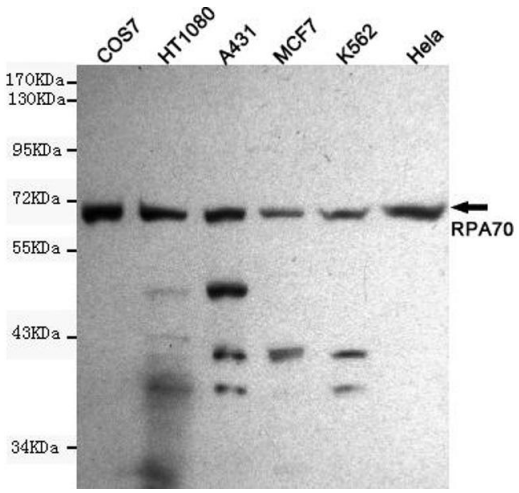
	DNA damage response (PubMed:< a href="http://www.uniprot.org/citations/24332808" target="_blank">24332808). It is required for the recruitment of the DNA double-strand break repair factors RAD51 and RAD52 to chromatin in response to DNA damage (PubMed:< a href="http://www.uniprot.org/citations/17765923" target="_blank">17765923). 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 (PubMed:< a href="http://www.uniprot.org/citations/7697716" target="_blank">7697716). Plays also a role in base excision repair (BER) probably through interaction with UNG (PubMed:< a href="http://www.uniprot.org/citations/9765279" target="_blank">9765279). Through RFWD3 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 (PubMed:< a href="http://www.uniprot.org/citations/17959650" target="_blank">17959650). As part of the alternative replication protein A complex, aRPA, binds single-stranded DNA and probably plays a role in DNA repair. Compared to the RPA2- containing, canonical RPA complex, may not support chromosomal DNA replication and cell cycle progression through S-phase. The aRPA may not promote efficient priming by DNA polymerase alpha but could support DNA synthesis by polymerase delta in presence of PCNA and replication factor C (RFC), the dual incision/excision reaction of nucleotide excision repair and RAD51-dependent strand exchange (PubMed:< a href="http://www.uniprot.org/citations/19996105" target="_blank">19996105).
UniProt:	P27694
Pathways:	Telomere Maintenance, DNA Damage Repair, Mitotic G1-G1/S Phases, DNA Replication, Chromatin Binding, Synthesis of DNA

Application Details

Application Notes:	IP: 1:500. WB: 1:1000. ICC: 1:100
Restrictions:	For Research Use only

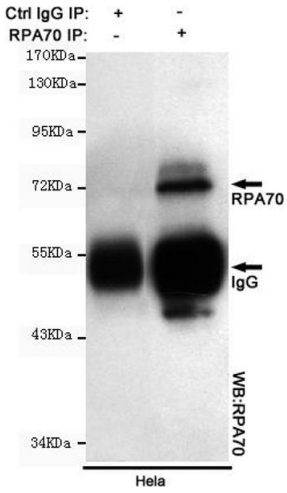
Handling

Format:	Liquid
Storage:	4 °C,-20 °C



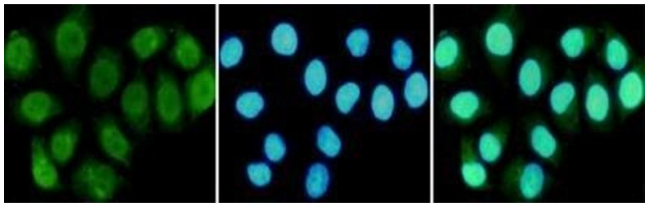
Western Blotting

Image 1. Western blot detection of R in Hela,A431,MCF7,COS7,H and K562 cell lysates using R mouse mAb (1:1000 diluted).Predicted band size:70KDa.Observed band size:70KDa.



Immunoprecipitation

Image 2. Immunoprecipitation analysis of Hela cell lysates using R mouse mAb.



Immunocytochemistry

Image 3. Immunocytochemistry staining of HeLa cells fixed in 1 % Paraformaldehyde and using R mouse mAb (dilution 1:100).