

Datasheet for ABIN7167701
anti-RPA1 antibody (AA 2-616)



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2 Images

Overview

Quantity:	100 µg
Target:	RPA1
Binding Specificity:	AA 2-616
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This RPA1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

Product Details

Immunogen:	Recombinant Human Replication protein A 70 kDa DNA-binding subunit protein (2-616AA)
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Purification:	>95%, Protein G purified

Target Details

Target:	RPA1
Alternative Name:	RPA1 (RPA1 Products)
Background:	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: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 DNA damage response (PubMed: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: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:7697716). Plays also a role in base excision repair (BER) probably through interaction with UNG (PubMed: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: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:19996105).

Aliases: Dmrpa1 antibody, Drosophila Replication Protein A antibody, DRPA antibody, HSSB antibody, Human single stranded DNA binding protein antibody, MST075 antibody, MSTP075 antibody, p70 antibody, REPA1 antibody, Replication factor A antibody, Replication factor A protein 1 antibody, Replication protein A 70 kDa DNA-binding subunit antibody, Replication protein A 70 kDa DNA binding subunit antibody, Replication protein A1 70 kDa antibody, Replication protein A1 antibody, RF A antibody, RF-A protein 1 antibody, RFA antibody, RFA1_HUMAN antibody, RP A antibody, RP-A p70 antibody, RPA 70 antibody, RPA antibody, rpa1 antibody, Single stranded binding protein 70 antibody, Single-stranded DNA-binding protein antibody

UniProt:	P27694
Pathways:	Telomere Maintenance , DNA Damage Repair , Mitotic G1-G1/S Phases , DNA Replication , Chromatin Binding , Synthesis of DNA

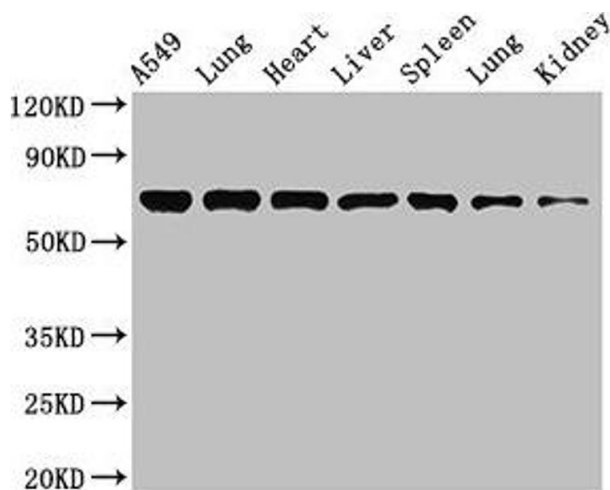
Application Details

Application Notes:	Recommended dilution: WB:1:500-1:5000, IHC:1:20-1:200,
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Application Details

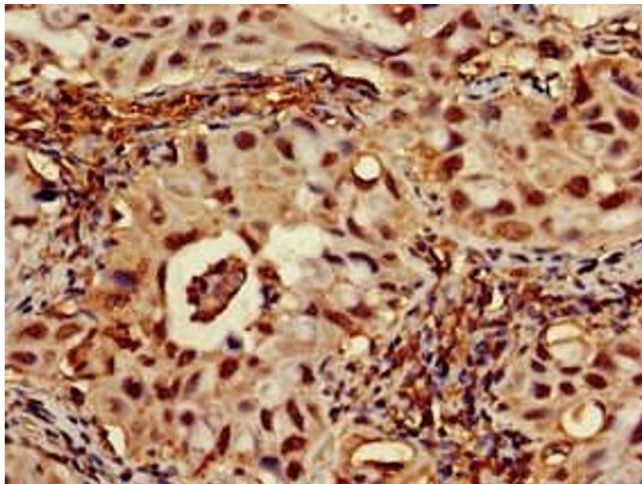
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Buffer:	Preservative: 0.03 % Proclin 300 Constituents: 50 % Glycerol, 0.01M PBS, pH 7.4
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



Western Blotting

Image 1. Western Blot Positive WB detected in: A549 whole cell lysate, Rat lung tissue, Mouse heart tissue, Mouse liver tissue, Mouse spleen tissue, Mouse lung tissue, Mouse kidney tissue All lanes: RPA1 antibody at 3.4 µg/mL Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 69 kDa Observed band size: 69 kDa



Immunohistochemistry

Image 2. Immunohistochemistry of paraffin-embedded human lung cancer using ABIN7167701 at dilution of 1:100