



Rabbit Anti-RPA70 antibody

SL11233R

Product Name:	RPA70
Chinese Name:	单链Binding protein70抗体
Alias:	Dmrrp1; Drosophila Replication Protein A; DRPA; HSSB; Human single stranded DNA binding protein; MST075; MSTP075; p70 antibody REPA1; Replication factor A; Replication factor A protein 1; Replication protein A 70 kDa DNA-binding subunit; Replication protein A 70kDa DNA binding subunit; Replication protein A1 70kDa; Replication protein A1; RF A; RF-A protein 1; RFA; RFA1_HUMAN; RP A; RP-A p70; RPA 70; RPA; Single stranded binding protein 70; Single-stranded DNA-binding protein.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1ug/TestICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	68kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human RPA70:201-300/616
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The single-stranded-DNA-binding proteins (SSBs) are essential for DNA function in

prokaryotic and eukaryotic cells, mitochondria, phages and viruses. Replication protein A (RPA), a highly conserved eukaryotic protein, is a heterotrimeric SSB. RPA plays an important role in DNA replication, recombination and repair. The binding of human RPA (hRPA) to DNA involves molecular polarity in which initial hRPA binding occurs on the 5' side of an ssDNA substrate and then extends in the 3' direction to create a stably bound hRPA. RPA is a major damage-recognition protein involved in the early stages of nucleotide excision repair. It can also play a role in telomere maintenance. The RPA 70 kDa subunit binds to ssDNA and mediates interactions with many cellular and viral proteins. The DNA binding domain lies in the middle of RPA 70 kDa subunit and comprises two structurally homologous subdomains oriented in tandem. RPA contains a conserved four cysteine-type zinc-finger motif, which mediates the transition of RPA-ssDNA interaction to a stable RPA-ssDNA complex in a redox-dependent manner.

Function:

Plays an essential role in several cellular processes in DNA metabolism including replication, recombination and DNA repair. Binds and subsequently stabilizes single-stranded DNA intermediates and thus prevents complementary DNA from reannealing.

Subunit:

Heterotrimer composed of RPA1, RPA2 and RPA3 (canonical replication protein A complex). Component of the alternative replication protein A complex (aRPA) composed of RPA1, RPA3 and RPA4. The DNA-binding activity may reside exclusively on the RPA1 subunit. Interacts with RIPK1 and XPA. Interacts with RPA4. Interacts with the polymerase alpha subunit POLA1/p180; this interaction stabilizes the replicative complex and reduces the misincorporation rate of DNA polymerase alpha by acting as a fidelity clamp. Interacts with RAD51 and SENP6 to regulate DNA repair. Interacts with HELB; this interaction promotes HELB recruitment to chromatin following DNA damage.

Subcellular Location:

Nucleus.

Similarity:

Belongs to the replication factor A protein 1 family.

SWISS:

P27694

Gene ID:

6117

Database links:

[Entrez Gene: 6117](#)Human

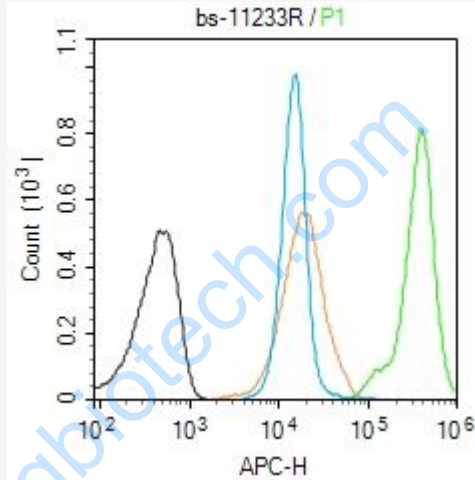
[Omim: 179835](#)Human

[SwissProt: P27694](#)Human

[Unigene: 461925](#)Human

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Blank control (Black line):Molt4 (Black).

Primary Antibody (green line): Rabbit Anti-RPA70 antibody (SL11233R)

Dilution: $1\mu\text{g} / 10^6$ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647

Dilution: $1\mu\text{g} / \text{test}$.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody

Picture:

	for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.
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