

RPA70/RPA1 Rabbit mAb

Catalog No.: A3367

Recombinant

2 Publications

Basic Information

Observed MW

70kDa

Calculated MW

68kDa

Category

Primary antibody

Applications

WB, IP, ELISA, ChIP

Cross-Reactivity

Human, Rat

CloneNo number

ARC0773

Background

This gene encodes the largest subunit of the heterotrimeric Replication Protein A (RPA) complex, which binds to single-stranded DNA (ssDNA), forming a nucleoprotein complex that plays an important role in DNA metabolism, being involved in DNA replication, repair, recombination, telomere maintenance, and co-ordinating the cellular response to DNA damage through activation of the ataxia telangiectasia and Rad3-related protein (ATR) kinase. The nucleoprotein complex protects the single-stranded DNA from nucleases, prevents formation of secondary structures that would interfere with repair, and co-ordinates the recruitment and departure of different genome maintenance factors. This subunit contains four oligonucleotide/oligosaccharide-binding (OB) domains, though the majority of ssDNA binding occurs in two of these domains. The heterotrimeric complex has two different modes of ssDNA binding, a low-affinity and high-affinity mode, determined by which ssDNA binding domains are utilized. The different binding modes differ in the length of DNA bound and in the proteins with which it interacts, thereby playing a role in regulating different genomic maintenance pathways.

Recommended Dilutions

WB 1:500 - 1:2000**IP** 0.5µg-4µg antibody for
200µg-400µg extracts of
whole cells**ELISA** Recommended starting
concentration is 1 µg/mL.
Please optimize the
concentration based on
your specific assay
requirements.**ChIP** 5µg antibody for
10µg-15µg of Chromatin

Immunogen Information

Gene ID

6117

Swiss Prot

P27694

Immunogen

Synthetic peptide. This information is considered to be commercially sensitive.

Synonyms

HSSB; RF-A; RP-A; REPA1; RPA70; MST075; PFBMFT6; RPA70/RPA1

Product Information

Source

Rabbit

Isotype

IgG

Purification


Affinity purification

Storage

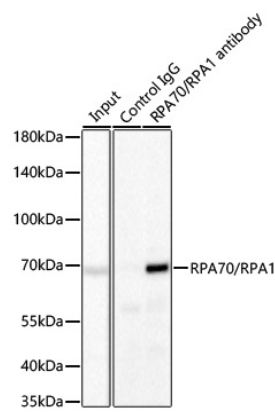
Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.02% sodium azide, 0.05% BSA, 50% glycerol, pH7.3.

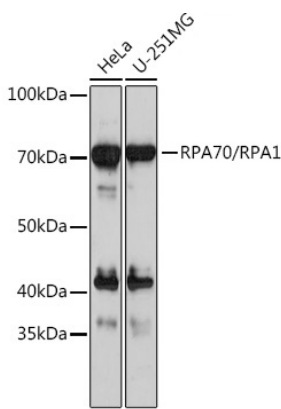
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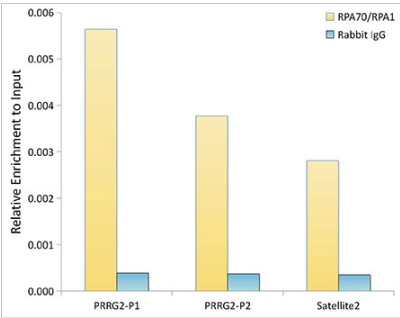
Validation Data



Immunoprecipitation of RPA70/RPA1 from 300 µg extracts of HeLa cells was performed using 2 µg of RPA70/RPA1 Rabbit mAb (A3367). Rabbit IgG isotype control (AC005) was used to precipitate the Control IgG sample. IP samples were eluted with 1X reducing Laemmli Buffer. The Input lane represents 10% of the total input. Western blot analysis of immunoprecipitates was conducted using RPA70/RPA1 Rabbit mAb (A3367) at a dilution of 1:1000.



Western blot analysis of various lysates using RPA70/RPA1 Rabbit mAb (A3367) at 1:1000 dilution. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 30s.



Chromatin immunoprecipitation analysis of extracts of HeLa cells, using RPA70/RPA1 Rabbit mAb antibody (A3367) and rabbit IgG. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.