

RPA 70 kDa subunit (h): 293 Lysate: sc-113188

BACKGROUND

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 the 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.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: RPA1 (human) mapping to 17p13.3.

PRODUCT

RPA 70 kDa subunit (h): 293 Lysate represents a lysate of human RPA 70 kDa subunit transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

RPA 70 kDa subunit (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive RPA 70 kDa subunit antibodies. Recommended use: 10-20 µl per lane.

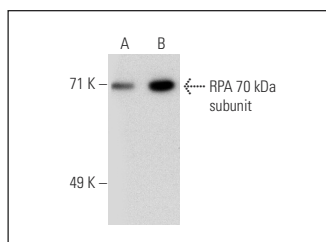
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

RPA 70 kDa subunit (B-6): sc-28304 is recommended as a positive control antibody for Western Blot analysis of enhanced human RPA 70 kDa subunit expression in RPA 70 kDa subunit transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

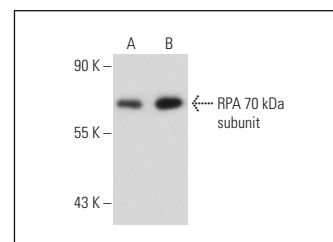
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



RPA 70 kDa subunit (B-6): sc-28304. Western blot analysis of RPA 70 kDa subunit expression in non-transfected: sc-110760 (A) and human RPA 70 kDa subunit transfected: sc-113188 (B) 293 whole cell lysates.



RPA 70 kDa subunit (MA70-2): sc-53497. Western blot analysis of RPA 70 kDa subunit expression in non-transfected: sc-110760 (A) and human RPA 70 kDa subunit transfected: sc-113188 (B) 293 whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.