

RPA40 (N-20): sc-17700

BACKGROUND

RNA polymerases transcribe nuclear genes for ribosomal RNA, thus representing ribosomal biogenesis. RNA polymerase I (Pol I) is located in the nucleolus and transcribes class I genes, which code for large ribosomal RNA. Different subunits of the Pol I transcription machinery are targets of various physiological stimuli, which suggests that multiple signaling pathways are involved in carrying out Pol I transcription. RPA16, RPA40 and RPA135 are subunits of Pol I that associate with each other at an early stage of RNA Pol I assembly. RPA40 is essential for the function and integrity of the complex and is also an essential subunit of RNA polymerase III (Pol III).

REFERENCES

1. Nogi, Y., et al. 1991. An approach for isolation of mutants defective in 35S ribosomal RNA synthesis in *Saccharomyces cerevisiae*. Proc. Natl. Acad. Sci. USA 16: 7026-7030.
2. Yao, Y., et al. 1996. Mouse RNA polymerase I 16 kDa subunit able to associate with 40 kDa subunit is a homolog of yeast AC19 subunit of RNA polymerases I and III. J. Biol. Chem. 51: 32881-32885.

CHROMOSOMAL LOCATION

Genetic locus: POLR1C (human) mapping to 6p21.1; Polr1c (mouse) mapping to 17 C.

SOURCE

RPA40 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RPA40 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17700 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RPA40 (N-20) is recommended for detection of RPA40 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RPA40 (N-20) is also recommended for detection of RPA40 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for RPA40 siRNA (h): sc-38242, RPA40 siRNA (m): sc-38243, RPA40 shRNA Plasmid (h): sc-38242-SH, RPA40 shRNA Plasmid (m): sc-38243-SH, RPA40 shRNA (h) Lentiviral Particles: sc-38242-V and RPA40 shRNA (m) Lentiviral Particles: sc-38243-V.

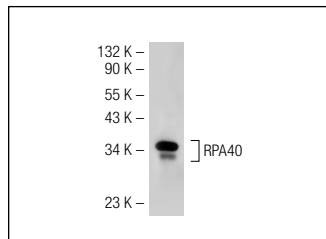
Molecular Weight of RPA40: 16/40 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



RPA40 (N-20): sc-17700. Western blot analysis of RPA40 expression in A-431 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Luna, L., et al. 2005. Dynamic relocalization of hOGG1 during the cell cycle is disrupted in cells harbouring the hOGG1-Cys³²⁶ polymorphic variant. Nucleic Acids Res. 33: 1813-1824.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. 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 or our catalog for detailed protocols and support products.


 MONOS
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Try **RPA40 (H-6): sc-374443** or **RPA40 (H-7): sc-374444**, our highly recommended monoclonal alternatives to RPA40 (N-20).