RFC5 (F-9): sc-376528

**BACKGROUND**

Replication factor C (RFC) is an essential DNA polymerase accessory protein that is required for numerous aspects of DNA metabolism including DNA replication, DNA repair, and telomere metabolism. RFC is a heteropentameric complex that recognizes a primer on a template DNA, binds to a primer terminus, and loads proliferating cell nuclear antigen (PCNA) onto DNA at primer-template junctions in an ATP-dependent reaction. All five of the RFC subunits share a set of related sequences (RFC boxes) that include nucleotide-binding consensus sequences. Four of the five RFC genes (RFC1, RFC2, RFC3, and RFC4) have consensus ATP-binding motifs. The small RFC proteins, RFC2, RFC3, RFC4 and RFC5, interact with Rad24, whereas the RFC1 subunit does not. The human RFC5 gene maps to chromosome 12q24.23 and encodes the RFC5 subunit. RFC5 and RAD24 are required for DNA damage checkpoint control in the budding yeast *Saccharomyces cerevisiae*. RFC5 is part of a mechanism transducing the DNA damage signal to the activation of the central transducer Rad53.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: RFC5 (human) mapping to 12q24.23; Rfc5 (mouse) mapping to 5 F.

**SOURCE**

RFCS (F-9) is a mouse monoclonal antibody raised against amino acids 161-340 mapping at the C-terminus of RFC5 of human origin.

**PRODUCT**

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

RFC5 (F-9) is available conjugated to agarose (sc-376528 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376528 HRP), 200 µg/ml, for WB, IHCP and ELISA; to either phycoerythrin (sc-376528 PE), fluorescein (sc-376528 FITC), Alexa Fluor® 488 (sc-376528 AF488), Alexa Fluor® 546 (sc-376528 AF546), Alexa Fluor® 594 (sc-376528 AF594) or Alexa Fluor® 647 (sc-376528 AF647), 200 µg/ml, for WB (RGB), IF, IHCP and FCM; and to either Alexa Fluor® 880 (sc-376528 AF880) or Alexa Fluor® 790 (sc-376528 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

RFC5 (F-9) is recommended for detection of RFC5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:1000-1:10000), 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).

Suitable for use as control antibody for RFC5 siRNA (h): sc-37637, RFC5 siRNA (m): sc-37638, RFC5 shRNA Plasmid (h): sc-37637-SH, RFC5 shRNA Plasmid (m): sc-37638-SH, RFC5 shRNA (h) Lentiviral: sc-37637-V and RFC5 shRNA (m) Lentiviral Particles: sc-37638-V.

Molecular Weight of RFC5: 38 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HeLa nuclear extract: sc-2120 or HCT-116 whole cell lysate: sc-364175.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HP: sc-516102 or m-IgG BP-HP (Cruz Marker): sc-516102-CM (dilution range: 1:100-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 [0.5 ml agarose/2.0 ml].


**DATA**

RFCS (F-9): sc-376528. Western blot analysis of RFC5 expression in HeLa nuclear extract (A) and HCT-116 whole cell lysate (B).

**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 for detailed protocols and support products.