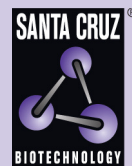


RFC3 (H-200): sc-20995



The Power to Question

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. RFC3 is required not only for DNA replication, but also for replication and damage checkpoint controls, probably functioning as a checkpoint sensor. The human RFC3 gene maps to chromosome 13q13.2 and encodes the RFC3 subunit. In *Saccharomyces cerevisiae*, purified RFC3 has an ATPase activity that is markedly stimulated by single-stranded DNA but not by double-stranded DNA or RNA.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: RFC3 (human) mapping to 13q13.2; Rfc3 (mouse) mapping to 5 G3.

SOURCE

RFC3 (H-200) is a rabbit polyclonal antibody raised against amino acids 157-356 mapping at the C-terminus of RFC3 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.

APPLICATIONS

RFC3 (H-200) is recommended for detection of RFC3 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).

RFC3 (H-200) is also recommended for detection of RFC3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for RFC3 siRNA (h): sc-37635, RFC3 siRNA (m): sc-37636, RFC3 shRNA Plasmid (h): sc-37635-SH, RFC3 shRNA Plasmid (m): sc-37636-SH, RFC3 shRNA (h) Lentiviral Particles: sc-37635-V and RFC3 shRNA (m) Lentiviral Particles: sc-37636-V.

Molecular Weight of RFC3: 38 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.



Try **RFC3 (G-10): sc-390293**, our highly recommended monoclonal alternative to RFC3 (H-200).