RFC4 (C-9): sc-28301

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 heterotrameric 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. Specifically, RFC4 plays a role in checkpoint regulation. RFC4 is a component of BASC (for BRCA1-associated genome surveillance complex) which serves as a sensor for abnormal DNA structures and/or as a regulator of the post-replication repair process. The human RFC4 gene maps to chromosome 3q27.3 and encodes the RFC4 subunit.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: RFC4 (human) mapping to 3q27.3; Rfc4 (mouse) mapping to 34K–43K–55K–90K–164K– chromosome 3q27.3 and encodes the RFC4 subunit.

SOURCE
RFC4 (C-9) is a mouse monoclonal antibody raised against amino acids 181-363 of RFC4 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.

RFC4 (C-9) is available conjugated to agarose (sc-28301 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to phycoerythrin (sc-28301 PE), fluorescein (sc-28301 FITC), Alexa Fluor® 488 (sc-28301 AF488), Alexa Fluor® 546 (sc-28301 AF546), Alexa Fluor® 594 (sc-28301 AF594) or Alexa Fluor® 647 (sc-28301 AF647), 200 µg/ml, for WB, IF (ICH) and FCM; and to either Alexa Fluor® 680 (sc-28301 AF680) or Alexa Fluor® 790 (sc-28301 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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

APPLICATIONS
RFC4 (C-9) is recommended for detection of RFC4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1,000), 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), immunohistochemistry (including paraffin-embedded sections) (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 RFC4 siRNA: sc-36406, RFC4 siRNA (m); sc-36407, RFC4 shRNA Plasmid: sc-36406-SH, RFC4 shRNA Plasmid (m): sc-36407-SH, RFC4 shRNA (h) Lentiviral Particles: sc-36406-V and RFC4 shRNA (m) Lentiviral Particles: sc-36407-V.

Molecular Weight of RFC4: 37 kDa.

Positive Controls: HEL 92.1.7 cell lysate: sc-2270, TF-1 cell lysate: sc-2412 or HeLa nuclear extract: sc-2120.

DATA

SELECT PRODUCT CITATIONS

STORAGE
Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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