abcam

ab174271

Anti-RFC2 antibody [EPR12093(B)]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR12093(B)
Purification technique	Affinity purification Protein A
Concentration	0.114 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information Replication factor C subunit 2

Function	Subunit of the replication factor C (RFC) complex which acts during elongation of primed DNA templates by DNA polymerases delta and epsilon, and is necessary for ATP-dependent loading of proliferating cell nuclear antigen (PCNA) onto primed DNA (PubMed:9488738). This subunit binds ATP (By similarity).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For

details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The Replication Factor C subunit 2 (RFC2) also known as Activator 1 40 kDa subunit is a component of the replication factor C complex. This complex is essential for the process of DNA replication and repair. RFC2 weighs approximately 39 kDa. It interacts directly with DNA polymerase and the DNA clamp protein proliferating cell nuclear antigen (PCNA) to initiate DNA synthesis. You will commonly find RFC2 expressed in proliferating cells where it plays a part in DNA replication and cell division.
Biological function summary	RFC2 acts as a part of the replication factor C complex which functions as a DNA-dependent ATPase. The complex assists in loading the sliding clamp PCNA onto DNA strands facilitating the DNA polymerase action on the leading and lagging strands during replication. The correct function of RFC2 in this multi-protein complex ensures the high-speed and accuracy required for efficient DNA synthesis. Additionally RFC2 helps coordinate the repair of DNA damage consolidating genomic stability.
Pathways	You will find RFC2 tightly integrated into the DNA replication and cell cycle control pathways. RFC2 through its interaction with PCNA influences the progression of the S-phase in the cell cycle. Another related protein RFC1 serves a similar function in the replication factor C complex highlighting a collaboration that is critical for DNA replication machinery's efficiency and fidelity.
Associated diseases and disorders	RFC2 holds significance due to its role in maintaining genomic stability. Aberrations in the functions of RFC2 can lead to genomic instability contributing to cancer development. Specific cancers such as colorectal cancer have shown altered expression of RFC2. RFC2 also has implications in the context of hereditary non-polyposis colorectal cancer (HNPCC) a condition often associated with mutations in DNA mismatch repair genes like MLH1. Through this disease connection the importance of RFC2 in maintaining cellular fidelity becomes clear.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

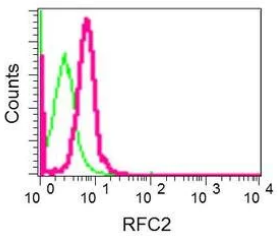
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

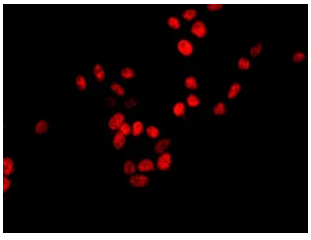
3 product images



Flow Cytometry (Intracellular) - Anti-RFC2 antibody [EPR12093(B)] (ab174271)

RFC2 Flow Cytometry (Intracellular) staining using rabbit Anti-RFC2 antibody

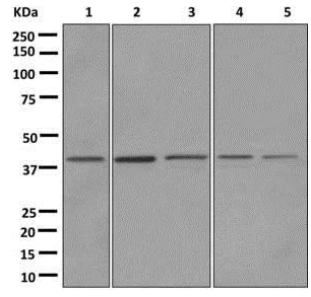
Intracellular flow cytometric analysis of permeabilized HeLa cells labeling RFC2 with ab174271at 1/10 dilution (red) or a rabbit IgG (negative) (green).



Immunocytochemistry/ Immunofluorescence - Anti-RFC2 antibody [EPR12093(B)] (ab174271)

RFC2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-RFC2 antibody

Immunofluorescent analysis of MCF7 cells labeling RFC2 with ab174271 at 1/100 dilution.



Western blot - Anti-RFC2 antibody [EPR12093(B)] (ab174271)

All lanes:
Western blot - Anti-RFC2 antibody [EPR12093(B)] (ab174271) at 1/1000 dilution

Lane 1:
HepG2 cell lysate at 10 µg

Lane 2:

K562 cell lysate at 10 µg

Lane 3:
MCF7 cell lysate at 10 µg

Lane 4:
293T (Human embryonic kidney epithelial cell) cell lysate at 10 µg

Lane 5:
HeLa cell lysate at 10 µg

Predicted band size: 39 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.