abcam

ab232030

Anti-p150 CAF1/CAF antibody [EPR5576(2)] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR5576(2)
Purification technique	Affinity purification Protein A
Concentration	1.077 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	-

Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information CHAF1A

Function Acts as a component of the histone chaperone complex chromatin assembly factor 1 (CAF-1), which assembles histone octamers onto DNA during replication and repair. CAF-1 performs the first step of the nucleosome assembly process, bringing newly synthesized histones H3 and H4 to replicating DNA; histones H2A/H2B can bind to this chromatin precursor subsequent to DNA replication to complete the histone octamer. It may play a role in heterochromatin maintenance in proliferating cells by bringing newly synthesized cbx proteins to heterochromatic DNA replication foci.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab232030 is the carrier-free version of ab126625.

Species reactivity

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

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

Activity summary	The p150 CAF1 also known as CAF protein and CAF1 protein is part of the chromatin assembly factor 1 complex. It weighs approximately 150 kDa. This protein primarily expresses in the nucleus of eukaryotic cells where it plays an

	important role in DNA replication and repair. The p150 protein acts as a structural component that is essential for proper chromatin assembly during the S phase of the cell cycle.
Biological function summary	This target functions as part of the CAF-1 complex which includes two additional subunits—p60 and p48. The complex aids in the assembly of newly synthesized histones onto replicating DNA facilitating nucleosome formation. It affects chromatin dynamics influencing transcriptional regulation by providing nucleosome assembly binding sites along DNA. This process maintains genomic integrity during cell division and influences gene expression in response to various cell signals.
Pathways	The p150 protein interacts within pathways involved in DNA replication and repair. It plays a major role in the nucleosome assembly pathway closely interacting with histone proteins H3 and H4. Through these interactions it ensures the stability of replication forks during DNA synthesis. Besides it participates in the regulation of the cell cycle and influences the chromatin assembly pathway important for accurate DNA replication and cell division.
Associated diseases and disorders	Several conditions show connection with the p150 protein's function in DNA replication. Alterations or defects in its expression link to cancer where chromatin misassembly leads to genomic instability a hallmark of tumorigenesis. Additionally the involvement of p150 in neurodegenerative disorders sheds light on how disrupted chromatin assembly can affect neural cells. Its interaction with proteins like retinoblastoma (Rb) points to the potential dysregulation in cell cycle control further influencing disease progression.

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

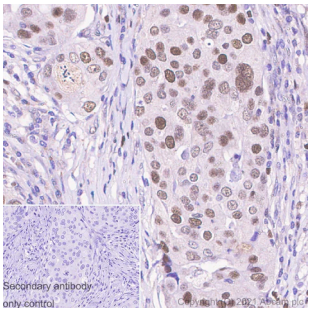
We do not recommend this combination. It is not covered by our product promise.

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.

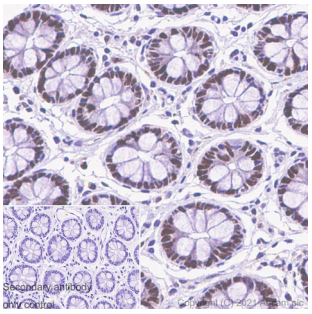
5 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p150 CAF1/CAF antibody [EPR5576(2)] - BSA and Azide free (ab232030)

P150 CAF1/CAF Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-p150 CAF1/CAF antibody

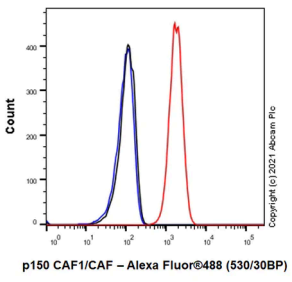
This data was developed using ab126625, the same antibody clone in a different buffer formulation.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue sections labeling p150 CAF1/CAF with Purified ab126625 at 1:150 (0.9 µg/ml). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p150 CAF1/CAF antibody [EPR5576(2)] - BSA and Azide free (ab232030)

P150 CAF1/CAF Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-p150 CAF1/CAF antibody

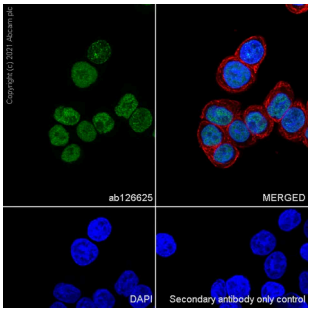
This data was developed using ab126625, the same antibody clone in a different buffer formulation.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon tissue sections labeling p150 CAF1/CAF with Purified ab126625 at 1:150 (0.9 µg/ml). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.



Flow Cytometry (Intracellular) - Anti-p150 CAF1/CAF antibody [EPR5576(2)] - BSA and Azide free (ab232030)

P150 CAF1/CAF Flow Cytometry (Intracellular) staining using rabbit Anti-p150 CAF1/CAF antibody

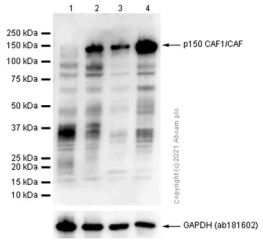
This data was developed using ab232030, the same antibody clone in a different buffer formulation.
Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling p150 CAF1/CAF with Purified ab232030 at 1:20 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1:2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabelled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-p150 CAF1/CAF antibody [EPR5576(2)] - BSA and Azide free (ab232030)

P150 CAF1/CAF Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-p150 CAF1/CAF antibody

This data was developed using ab232030, the same antibody clone in a different buffer formulation.
Immunocytochemistry analysis of HT-29 (Human colorectal adenocarcinoma epithelial cell) cells labeling p150 CAF1/CAF with Purified ab232030 at 1:50 dilution (2.7 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Western blot - Anti-p150 CAF1/CAF antibody [EPR5576(2)] - BSA and Azide free (ab232030)

All lanes:
Western blot - Anti-p150 CAF1/CAF antibody [EPR5576(2)] (ab126625) at 1/10000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 2:
HeLa (Human cervix adenocarcinoma epithelial cell) starved 24 hours and treated with 500ng/ml nocodazole for 24 hours whole cell lysate

Lane 3:
MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate

Lane 4:
K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysate

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 107 kDa

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