abcam

ab232614

Anti-CENPC antibody [EPR15939] - 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	EPR15939
Purification technique	Affinity purification Protein A
Concentration	1.005 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-

Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Expected

Species	Mouse, Rat, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information CENPC

Function	Component of the CENPA-NAC (nucleosome-associated) complex, a complex that plays a central role in assembly of kinetochore proteins, mitotic progression and chromosome segregation. The CENPA-NAC complex recruits the CENPA-CAD (nucleosome distal) complex and may be involved in incorporation of newly synthesized CENPA into centromeres. CENPC recruits DNA methylation and DNMT3B to both centromeric and pericentromeric satellite repeats and regulates the histone code in these regions.

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

ab232614 is the carrier-free version of ab193666.

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 centromere protein C (CENP-C) plays an important mechanical role in the assembly of the kinetochore a protein structure on chromosomes. Alternative names for this protein include MCM21R and Centromere protein C 1. CENP-C acts as a structural platform bringing together specific components needed for chromosome segregation during cell division. Its mass is approximately 140 kDa. CENP-C is expressed in a broad range of cell types especially in dividing cells or tissues with high turnover rates.
Biological function summary	This protein is essential for the proper attachment of chromosomes to spindle microtubules. CENP-C interacts as a core component of the larger constitutive centromere-associated network (CCAN) complex. This complex contributes to the stability and function of the centromere. Additionally centromeres require CENP-C for correct kinetochore assembly ensuring accurate chromosome alignment and separation during mitosis and meiosis.
Pathways	CENP-C contributes to the mitotic spindle assembly checkpoint and the cell cycle pathway. The interaction with other centromere proteins such as CENP-A CENP-B and CENP-H is significant for proper centromere structure and kinetochore attachment. By doing so these interactions facilitate the checkpoint pathways that prevent premature progression into anaphase until all chromosomes are properly aligned.
Associated diseases and disorders	Alterations in CENP-C levels or functions associate with cancers and chromosomal instability syndromes. In cancer abnormal CENP-C expression can lead to errors in chromosome segregation contributing to aneuploidy. CENP-C's relationship with proteins like CENP-A emphasizes its role in maintaining chromosomal stability linking it to malignancies where such stability is compromised.

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

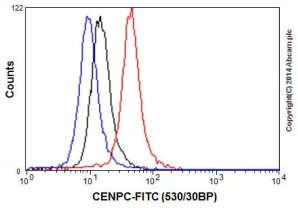
We do not recommend this combination. It is not covered by our product promise.

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.

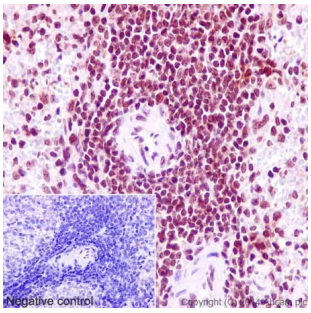
4 product images



Flow Cytometry (Intracellular) - Anti-CENPC antibody [EPR15939] - BSA and Azide free (ab232614)

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

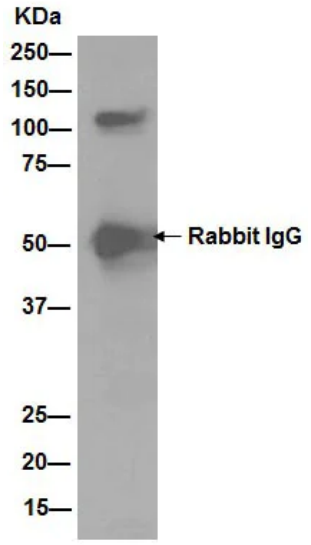
Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed K562 cells labeling CENPC with ab193666 at 1/400 dilution (red) compared with a rabbit monoclonal IgG isotype control (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (FITC) at 1/150 dilution was used as the secondary antibody. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab193666).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CENPC antibody [EPR15939] - BSA and Azide free (ab232614)

Immunohistochemical analysis of paraffin-embedded human spleen tissue labeling CENPC with ab193666 at 1/1,000 dilution, followed by prediluted HRP polymer for Rabbit/Mouse IgG. Counter stained with hematoxylin.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab193666).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



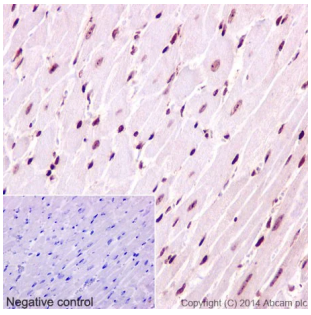
Immunoprecipitation - Anti-CENPC antibody [EPR15939] - BSA and Azide free (ab232614)

Western blot analysis of CENPC immunoprecipitated from Jurkat cell lysate using ab193666 at 1/100 dilution.
Secondary antibody: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution.
Blocking/Dilution buffer: 5% NFDM/TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab193666).

All lanes:
Immunoprecipitation - Anti-CENPC antibody [EPR15939] (ab193666)

Predicted band size: 107 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CENPC antibody [EPR15939] - BSA and Azide free (ab232614)

CENPC Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CENPC antibody

Immunohistochemical analysis of paraffin-embedded Rat cardiac muscle tissue labeling CENPC with ab193666 at 1/1000 dilution (2µg/ml), followed by prediluted HRP Polymer for Rabbit/Mouse IgG. Counter stained with Hematoxylin.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab193666).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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