abcam

ab193666

Anti-CENPC antibody [EPR15939]

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	EPR15939
Purification technique	Affinity purification Protein A
Concentration	2.075 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

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

WB

Tested

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

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

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/400
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

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

Notes	-

IHC-P

Tested

Species	Rat
Dilution info	1/500 - 1/1000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/500 - 1/1000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
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	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 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

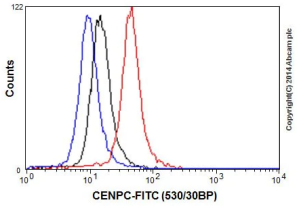
We do not recommend this combination. It is not covered by our product promise.

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.

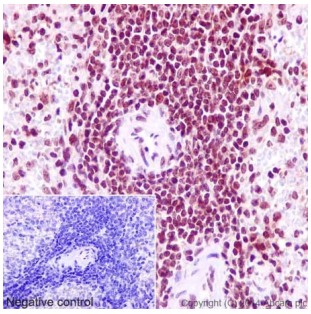
7 product images



Flow Cytometry (Intracellular) - Anti-CENPC antibody [EPR15939] (ab193666)

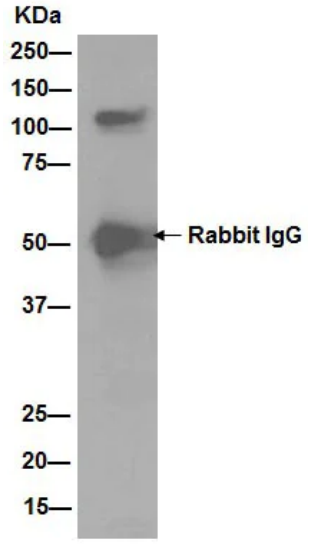
CENPC Flow Cytometry (Intracellular) staining using rabbit Anti-CENPC antibody

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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CENPC antibody [EPR15939] (ab193666)

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.
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

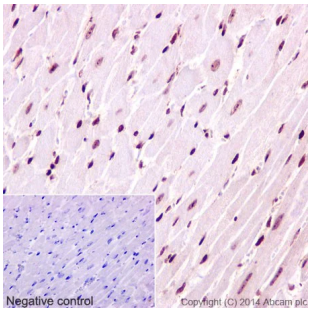


Immunoprecipitation - Anti-CENPC antibody [EPR15939] (ab193666)

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.

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

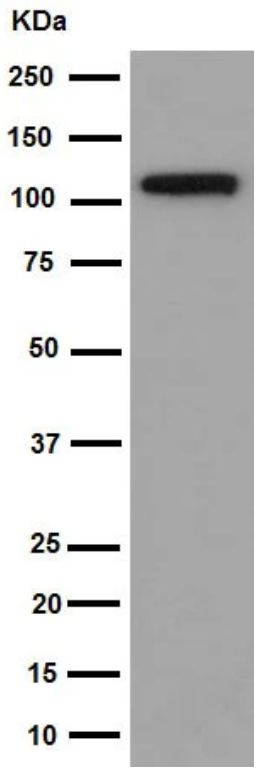
Predicted band size: 107 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CENPC antibody [EPR15939] (ab193666)

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.
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-CENPC antibody [EPR15939] (ab193666)

CENPC Western blot staining of K562 cell lysate using rabbit Anti-CENPC antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-CENPC antibody [EPR15939] (ab193666) at 1/10000 dilution

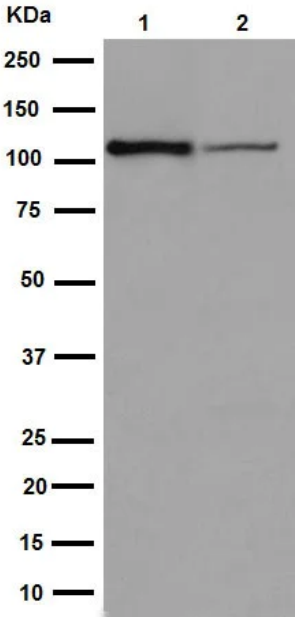
All lanes:
K562 cell lysate at 10 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 107 kDa

Observed band size: 107 kDa



Western blot - Anti-CENPC antibody [EPR15939] (ab193666)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-CENPC antibody [EPR15939] (ab193666) at 1/5000 dilution

Lane 1:
Jurkat cell lysate at 20 µg

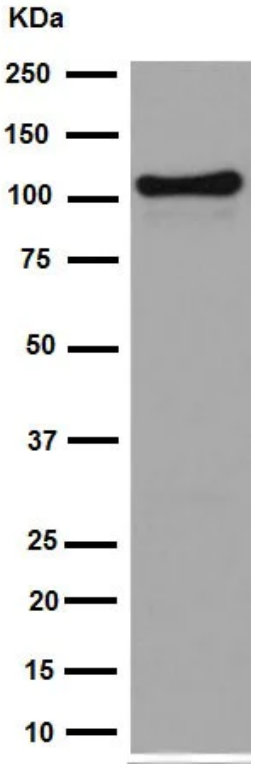
Lane 2:
A431 cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 107 kDa

Observed band size: 107 kDa



Western blot - Anti-CENPC antibody [EPR15939] (ab193666)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-CENPC antibody [EPR15939] (ab193666) at 1/1000 dilution

All lanes:
NIH/3T3 cell lysate at 10 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 107 kDa

Observed band size: 107 kDa

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