abcam

ab220784

Anti-Pericentrin antibody [EPR21987] - Centrosome Marker

Anti-Pericentrin antibody [EPR21987] - Centrosome Marker (ab220784) is a rabbit monoclonal antibody detecting Pericentrin in **Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human, Mouse**.

- Biophysical QC for unrivalled batch-batch consistency

Lab Essentials | 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	EPR21987
Purification technique	Affinity purification Protein A
Concentration	0.6 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Mouse, Human

Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/2000
Notes	-

Species	Human
Dilution info	1/2000
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/60
Notes	-

Expected

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

IHC-P

Tested

Species	Human
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information PCNT

Function	Integral component of the filamentous matrix of the centrosome involved in the initial establishment of organized microtubule arrays in both mitosis and meiosis. Plays a role, together with DISC1, in the microtubule network formation. Is an integral component of the pericentriolar material (PCM). May play an important role in preventing premature centrosome splitting during interphase by inhibiting NEK2 kinase activity at the centrosome.

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

What is this antibody validated in?
Anti-Pericentrin antibody [EPR21987] - Centrosome Marker (ab220784) is a rabbit recombinant monoclonal antibody and is validated for use in Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse samples.

Other related products
We have a range of other formats of antibody clone [EPR21987] also available for your convenience: ab220784, Carrier free - ab237034, Alexa Fluor® 488 - ab270118, Alexa Fluor® 647 - ab270119, Alexa Fluor® 594 - ab314881,

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	Pericentrin also known as PCNT is a large protein with a mass of approximately 360 kDa. It primarily localizes at the centrosome an organelle serving as the main microtubule organizing center in cells. Expressed in most cell types pericentrin is an essential structural component of the centrosome. Researchers often use pericentrin staining techniques to visualize centrosomes aiding in the study of cell division. This protein functions prominently as a centrosome marker facilitating centrosome image and imaging of centrosome-related structures.
Biological function summary	Pericentrin contributes significantly to maintaining centrosome integrity and organizing microtubules during cell division. It is a part of the pericentriolar material a complex that stabilizes and anchors microtubules to the centrosome. By forming a scaffold at the centrosome pericentrin plays an important role in recruiting other proteins like γ-tubulin enhancing its function in nucleating microtubules. The pericentrin protein is vital for proper spindle organization during mitosis affecting accurate chromosome segregation.
Pathways	Pericentrin is integral to the cell cycle and mitotic spindle assembly pathways. It interacts with several other proteins involved in mitosis including γ-tubulin and ninein to manage the assembly and stability of the mitotic spindle. By participating in these pathways pericentrin ensures correct cellular replication and division therefore maintaining genetic stability within organisms.
Associated diseases and disorders	Mutations in the pericentrin gene have been linked to microcephalic osteodysplastic primordial dwarfism type II and Seckel syndrome. These conditions suggest a connection between defective pericentrin function and disruptions in cell division and growth. Studies also show that alterations in pericentrin levels can influence tumorigenesis by affecting centrosome function and chromosome segregation increasing the importance of this protein in cancer research.

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.

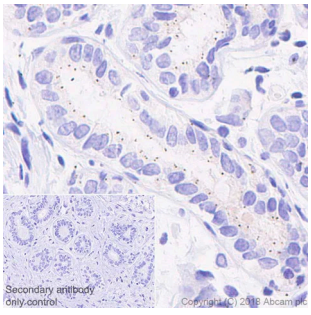
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

---

6 product images

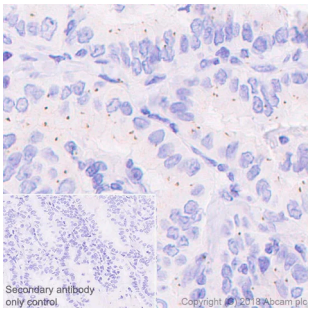


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pericentrin antibody [EPR21987] - Centrosome Marker (ab220784)

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

Immunohistochemical analysis of paraffin-embedded human breast tissue labeling Pericentin with ab220784 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining of centrosomes in human mammary epithelial cells (PMID: 16534625, PMID: 22031837). Counterstained with hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

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

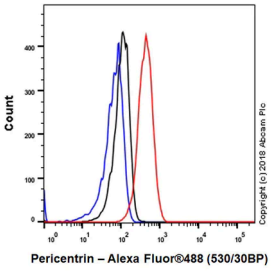


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pericentrin antibody [EPR21987] - Centrosome Marker (ab220784)

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

Immunohistochemical analysis of paraffin-embedded human thyroid carcinoma tissue labeling Pericentin with ab220784 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining of centrosomes in human thyroid carcinoma (PMID: 16534625, PMID: 22031837). Counterstained with hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

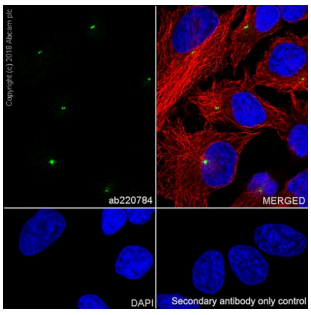
Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Pericentrin antibody [EPR21987] - Centrosome Marker (ab220784)

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

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) cell line labeling Pericentrin with ab220784 at 1/60 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells incubated with secondary antibody only) (blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.

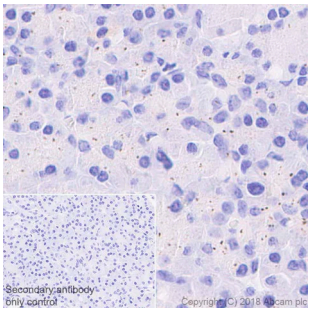


Immunocytochemistry/ Immunofluorescence - Anti-Pericentrin antibody [EPR21987] - Centrosome Marker (ab220784)

Pericentrin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Pericentrin antibody

Immunofluorescent analysis of 100% Methanol-fixed HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling Pericentrin with ab220784 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing centrosome staining in HeLa cell line.
The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) (red) at 1/200 dilution.

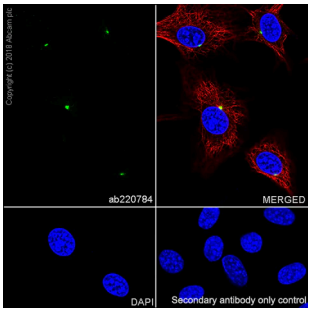
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pericentrin antibody [EPR21987] - Centrosome Marker (ab220784)

Immunohistochemical analysis of paraffin-embedded human pancreas tissue labeling Pericentin with ab220784 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining of centrosomes in human pancreas (PMID: 16534625, PMID: 22031837). Counterstained with hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

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



Immunocytochemistry/ Immunofluorescence - Anti-Pericentrin antibody [EPR21987] - Centrosome Marker (ab220784)

Pericentrin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Pericentrin antibody

Immunofluorescent analysis of 100% Methanol-fixed NIH/3T3 (mouse embyro fibroblast cell line) cells labeling Pericentrin with ab220784 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing centrosome staining in NIH/3T3 cell line.
The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

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