abcam

ab324615

Anti-PCM1 antibody [EPR30467-546]

Recombinant | RabMAb | Advanced Validation

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	EPR30467-546
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

Expected

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

ICC/IF

Tested

Species	Human
Dilution info	1/5000
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/200
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	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Species	Mouse
Dilution info	1/1000
Notes	-

mIHC

Tested

Species	Human
Dilution info	1/200
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 PCM1

Function	Required for centrosome assembly and function (PubMed:12403812, PubMed:15659651, PubMed:16943179). Essential for the correct localization of several centrosomal proteins including CEP250, CETN3, PCNT and NEK2 (PubMed:12403812, PubMed:15659651). Required to anchor microtubules to the centrosome (PubMed:12403812, PubMed:15659651). Also involved in cilium biogenesis by recruiting the BBSome, a ciliary protein complex involved in cilium biogenesis, to the centriolar satellites (PubMed:20551181, PubMed:24121310, PubMed:27979967). Recruits the tubulin polyglutamylase complex (TPGC) to centriolar satellites (PubMed:34782749).

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

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.

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

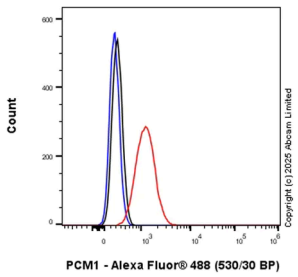
We do not recommend this combination. It is not covered by our product promise.

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.

9 product images

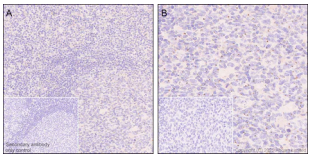


Flow Cytometry (Intracellular) - Anti-PCM1 antibody [EPR30467-546] (ab324615)

PCM1 Flow Cytometry (Intracellular) staining of HeLa (human cervical adenocarcinoma epithelial cell) using rabbit Anti-PCM1 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HeLa (human cervical adenocarcinoma epithelial cell) cells labelling PCM1 with ab324615 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCM1 antibody [EPR30467-546] (ab324615)

PCM1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-PCM1 antibody

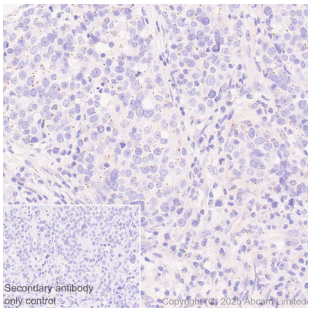
Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling PCM1 with ab324615 at 1/200 (2.5 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on centrosomes in human tonsil. (A) Low-powered (magnification, x20) and (B) high-powered (magnification, x40).
The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCM1 antibody [EPR30467-546] (ab324615)

PCM1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human ovarian carcinoma using rabbit Anti-PCM1 antibody

Immunohistochemical analysis of paraffin-embedded Human ovarian carcinoma tissue labeling PCM1 with ab324615 at 1/200 (2.5 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

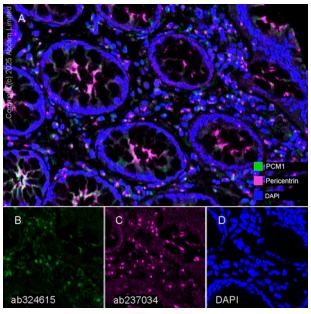
Positive staining on centrosomes in human ovarian carcinoma.
The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

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Multiplex immunohistochemistry - Anti-PCM1 antibody [EPR30467-546] (ab324615)

PCM1 Multiplex immunohistochemistry staining of Human colon using rabbit Anti-PCM1 antibody

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded human colon tissue staining PCM1 with ab324615 at a 1:200 (2.5 ug/ml) dilution, ab237034 anti-Pericentrin used at 1:200 (5.0 ug/ml) dilution.

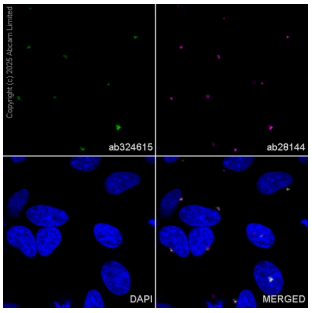
Panel A: merged staining of anti-PCM1 (green; Opal™520) and anti-Pericentrin (magenta; Opal™570) on human colon.
Panel B: anti-PCM1 staining centrosomes in human colon.
Panel C: ant-Pericentrin staining centrosomes in human colon.
Panel D: Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab324615 and ab237034 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

Nuclear counter stain with DAPI.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Immunocytochemistry/ Immunofluorescence - Anti-PCM1 antibody [EPR30467-546] (ab324615)

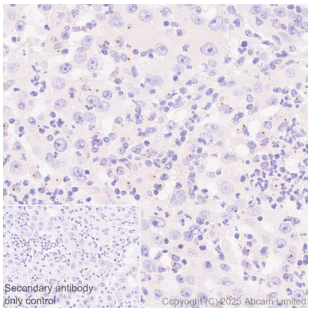
PCM1 Immunocytochemistry/ Immunofluorescence staining of HeLa (human cervical adenocarcinoma epithelial cell) using rabbit Anti-PCM1 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HeLa (human cervical adenocarcinoma epithelial cell) cells labelling PCM1 with ab324615 at 1/5000 (0.1 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/ab150081 1000 2ug/ml dilution (Green).

Confocal image showing centrosome staining in HeLa cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab28144 Anti-Pericentrin mouse monoclonal antibody - Centrosome Marker was used to counterstain tubulin at 1/ab28144 100 10.00ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/ab150081 1000 2ug/ml dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCM1 antibody [EPR30467-546] (ab324615)

PCM1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human lung carcinoma using rabbit Anti-PCM1 antibody

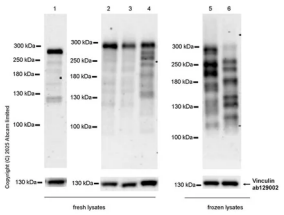
Immunohistochemical analysis of paraffin-embedded Human lung carcinoma tissue labeling PCM1 with ab324615 at 1/200 (2.5 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on centrosomes in human lung carcinoma.
The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Western blot - Anti-PCM1 antibody [EPR30467-546] (ab324615)

PCM1 Western blot staining using rabbit Anti-PCM1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

To minimize protein degradation, the lane1-4 fresh lysates were lysed immediately after harvest and then applied to a gel and transfer membrane for Western blotting as soon as possible.

Lanes 1-4 are applied with Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000, lanes 5-6 are applied with Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/20000.

Lanes 2-4 was developed using a high-sensitivity ECL substrate, allowing for the detection of proteins in the mid-femtogram range.

In Western blot, Anti-Vinculin antibody EPR8185 staining at 1/10000 dilution.

Exposure time: Lane1: 180 seconds, lane2-4:114 seconds, lane 5-6:125 seconds
All lanes:
Western blot - Anti-PCM1 antibody [EPR30467-546] (ab324615) at 1/1000 dilution

Lane 1:
Neuro-2a (mouse neuroblastoma neuroblast) fresh whole cell lysate at 20 µg

Lane 2:
HeLa (human cervical adenocarcinoma epithelial cell) fresh whole cell lysate at 20 µg

Lane 3:
293T (human embryonic kidney epithelial cell) fresh whole cell lysate at 20 µg

Lane 4:
NIH/3T3 (mouse embryonic fibroblast) fresh whole cell lysate at 20 µg

Lane 5:
HeLa (human cervical adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 6:
NIH/3T3 (mouse embryonic fibroblast) (mouse embryonic fibroblast) whole cell lysate at 20 µg

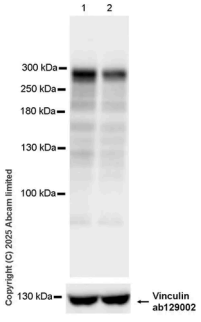
Secondary

Lanes 1 - 4:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Lanes 5 - 6:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Developed using the ECL technique.

Observed band size: 300 kDa, 124 kDa



Western blot - Anti-PCM1 antibody [EPR30467-546] (ab324615)

PCM1 Western blot staining using rabbit Anti-PCM1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

To minimize protein degradation, the fresh lysates were lysed immediately after harvest and then applied to a gel and transfer membrane for Western blotting as soon as possible.

In Western blot, Anti-Vinculin antibody EPR8185 staining at 1/10000 dilution.

All lanes:
Western blot - Anti-PCM1 antibody [EPR30467-546] (ab324615) at 1/1000 dilution

Lane 1:
K-562 (human chronic myelogenous leukemia lymphoblast) transfected with scrambled siRNA control fresh whole cell lysate at 20 µg

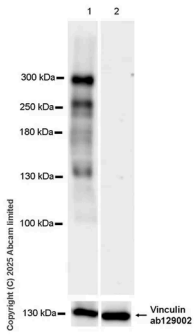
Lane 2:
K-562 transfected with siRNA specifically targeting PCM1 fresh whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 300 kDa, 124 kDa

Exposure time: 6s



Western blot - Anti-PCM1 antibody [EPR30467-546] (ab324615)

PCM1 Western blot staining using rabbit Anti-PCM1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Low expression: spleen

In Western blot, Anti-Vinculin antibody EPR8185 staining at 1/10000 dilution.

All lanes:
Western blot - Anti-PCM1 antibody [EPR30467-546] (ab324615) at 1/1000 dilution

Lane 1:
Mouse testis tissue lysate at 20 µg

Lane 2:
Mouse spleen tissue lysate at 20 µg

Secondary

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

Observed band size: 300 kDa, 1324 kDa

Exposure time: 26s

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