abcam

ab325528

Anti-PLCZ1 antibody [EPR29768-46]

Recombinant | RabMAb | Advanced Validation | 20ul selling size

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	EPR29768-46
Purification technique	Affinity purification Protein A
Concentration	0.525 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Transfected cell line - Human
Dilution info	-
Notes	-

Species	Human

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

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

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Transfected cell line - Human
Dilution info	-
Notes	-

Species	Mouse
Dilution info	1/50
Notes	-

Expected

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

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-

Notes	-

Flow Cyt (Intra)

Tested

Species	Transfected cell line - Human
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

I-ELISA

Tested

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Transfected cell line - Human
Dilution info	-
Notes	-

IHC-Fr

Tested

Species	Mouse
Dilution info	1/200
Notes	-

Expected

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

Not recommended

Species	Transfected cell line - Human, Recombinant full length protein - Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Transfected cell line - Human, Recombinant full length protein - Human
Dilution info	-
Notes	-

mIHC

Tested

Species	Human
Dilution info	1/500
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	-

Not recommended

Species	Transfected cell line - Human, Recombinant full length protein - Human
Dilution info	-
Notes	-

WB

Not recommended

Species	Human, Mouse, Transfected cell line - Human, Recombinant full length protein - Human
Dilution info	-
Notes	-

Target data

See full target information PLCZ1

Function The production of the second messenger molecules diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) is mediated by activated phosphatidylinositol-specific phospholipase C enzymes. In vitro, hydrolyzes PtdIns(4,5)P2 in a Ca(2+)-dependent manner. Triggers intracellular Ca(2+) oscillations in oocytes solely during M phase and is involved in inducing oocyte activation and initiating embryonic development up to the blastocyst stage. Is therefore a strong candidate for the egg-activating soluble sperm factor that is transferred from the sperm into the egg cytoplasm following gamete membrane fusion. May exert an inhibitory effect on phospholipase-C-coupled processes that depend on calcium ions and protein kinase C, including CFTR trafficking and function.

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.

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.

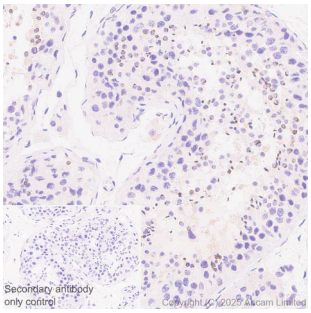
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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13 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PLCZ1 antibody [EPR29768-46] (ab325528)

PLCZ1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human testis using rabbit Anti-PLCZ1 antibody

Immunohistochemical analysis of paraffin-embedded Human testis tissue labeling PLCZ1 with ab325528 at 1/500 (1.028 µg/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on human testis (PMID: 26721930, PMID: 32146562). The primary antibody was incubated for 30 mins at room temperature.

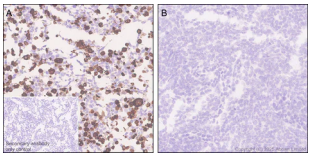
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

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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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PLCZ1 antibody [EPR29768-46] (ab325528)

PLCZ1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-PLCZ1 antibody

Immunohistochemical analysis of paraffin-embedded (A): HEK-293T (human embryonic kidney epithelial cell) transfected with a human PLCZ1 expression vector containing a myc-His-tag (B): HEK-293T transfected with empty vector containing a His tag tissue labeling PLCZ1 with ab325528 at 1/1000 (0.514 µg/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

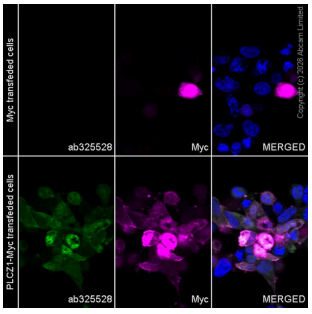
Positive staining on (A): HEK-293T transfected with a human PLCZ1 expression vector containing a myc-His-tag, no staining on (B) HEK-293T transfected with empty vector containing a His tag. The primary antibody was incubated for 30 mins at room temperature.

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



Immunocytochemistry/ Immunofluorescence - Anti-PLCZ1 antibody [EPR29768-46] (ab325528)

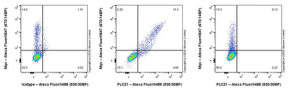
PLCZ1 Immunocytochemistry/ Immunofluorescence staining of 293T (human embryonic kidney epithelial cell) using rabbit Anti-PLCZ1 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized 293T (human embryonic kidney epithelial cell) cells labelling PLCZ1 with ab325528 at 1/5000 (0.103 µg/ml) dilution , followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing positive staining in 293T cells (shown in green) transfected with a human PLCZ1 vector containing a myc-His-tag®. 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).

ab223894 Anti-Myc tag mouse monoclonal antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/100 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 1/1000 dilution.

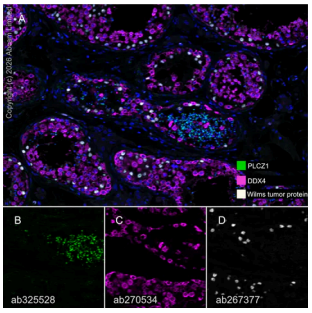


Flow Cytometry (Intracellular) - Anti-PLCZ1 antibody [EPR29768-46] (ab325528)

PLCZ1 Flow Cytometry (Intracellular) staining using rabbit Anti-PLCZ1 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized 293T cells transfected with a human PLCZ1 expression vector containing a myc-His-tag® (Middle) 293T cells transfected with an empty expression vector containing a myc-His-tag® (Right) cells labelling PLCZ1 with ab325528 at 1/5000 dilution (0.01ug) / Middle and Right compared with a Rabbit monoclonal IgG (ab172730) / Left 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.



Multiplex immunohistochemistry - Anti-PLCZ1 antibody [EPR29768-46] (ab325528)

PLCZ1 Multiplex immunohistochemistry staining of Human testis using rabbit Anti-PLCZ1 antibody

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded human testis tissue staining PLCZ1 with ab325528 at a 1/500 (1.028 µg/ml) dilution, ab270534 anti-DDX4 used at a 1/2000 (0.238 µg/ml) dilution, and ab267377 anti-Wilms tumor protein used at a 1/500 (0.706 µg/ml) dilution.
Panel A: anti-PLCZ1 (green; Opal™520), anti-DDX4 (magenta; Opal™690), anti-Wilms tumor protein (gray; Opal™570) on human testis.

Panel B: anti-PLCZ1 staining spermatid in human testis.

Panel C: anti-DDX4 staining spermatogonia in human testis.

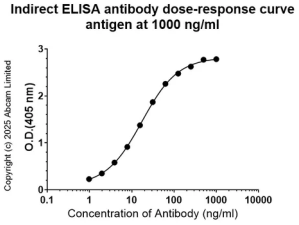
Panel D: anti-Wilms tumor protein staining Sertoli cells in human testis.

Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab325528, ab270534 and ab267377 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.

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

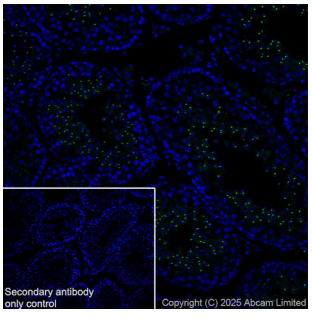


Indirect ELISA - Anti-PLCZ1 antibody [EPR29768-46] (ab325528)

Indirect ELISA analysis of ab325528 at 1000-0 ng/ml. The Secondary antibody used was Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 1:2500 dilution dilution.

Antigen: Human PLCZ1 protein.

Antigen concentration: 1000 ng/ml



Immunohistochemistry (Frozen sections) - Anti-PLCZ1 antibody [EPR29768-46] (ab325528)

PLCZ1 Immunohistochemistry (Frozen sections) staining of Mouse Testis using rabbit Anti-PLCZ1 antibody

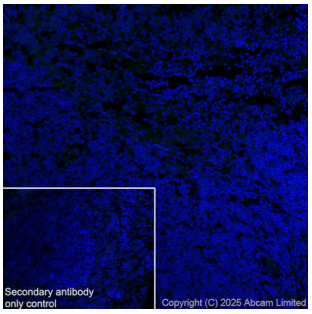
Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse testis (perfused fixed) tissue labeling PLCZ1 with ab325528 at 1/200 (2.57 µg/ml) dilution followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor®488) preadsorbed at 1/1000 2 µg/ml dilution (Green).

Confocal image showing positive staining on mouse testis. The nuclear counterstain was DAPI (Blue). The section was incubated with the primary antibody for 60 mins at room temperature. The section was then mounted using Fluoromount™.The immunostaining was performed on a Leica

Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)



Immunohistochemistry (Frozen sections) - Anti-PLCZ1 antibody [EPR29768-46] (ab325528)

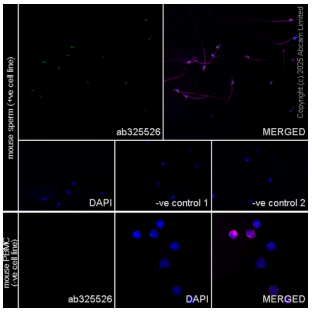
PLCZ1 Immunohistochemistry (Frozen sections) staining of Mouse Spleen using rabbit Anti-PLCZ1 antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse spleen (perfused fixed) tissue labeling PLCZ1 with ab325528 at 1/200 (2.57 µg/ml) dilution followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/ml dilution (Green).

Low expression: confocal image showing positive staining on mouse spleen. The nuclear counterstain was DAPI (Blue). The section was incubated with the primary antibody for 60 mins at room temperature. The section was then mounted using Fluoromount™.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)



Immunocytochemistry/ Immunofluorescence - Anti-PLCZ1 antibody [EPR29768-46] (ab325528)

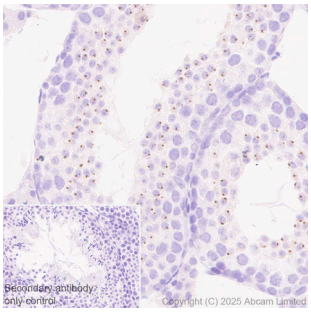
PLCZ1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PLCZ1 antibody

Immunofluorescent analysis of 80% Methanol-fixed, 0.1% TritonX-100 permeabilized mouse sperm; Mouse PBMC (mouse primary peripheral blood mononuclear cell) cells labelling PLCZ1 with ab325528 at 1/50 (10.28 µg/ml) dilution , followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing nuclear staining in mouse sperms (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Negative control: mouse PBMC. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab7291 Anti-alpha Tubulin mouse monoclonal antibody was used to counterstain tubulin at 1/1000 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 1/1000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PLCZ1 antibody [EPR29768-46] (ab325528)

PLCZ1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse testis using rabbit Anti-PLCZ1 antibody

Immunohistochemical analysis of paraffin-embedded Mouse testis tissue labeling PLCZ1 with ab325528 at 1/1000 (0.514 µg/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on mouse testis. The primary antibody was incubated for 30 mins at room temperature.

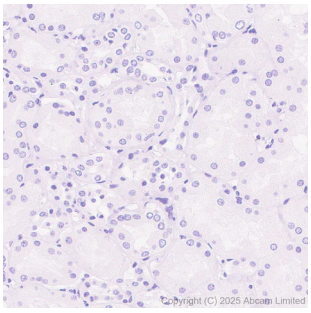
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

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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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PLCZ1 antibody [EPR29768-46] (ab325528)

PLCZ1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-PLCZ1 antibody

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling PLCZ1 with ab325528 at 1/500 (1.028 µg/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Low expression: no staining on human kidney. The primary antibody was incubated for 30 mins at room temperature.

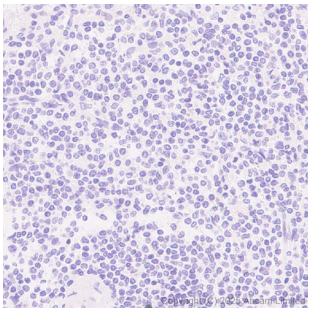
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

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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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PLCZ1 antibody [EPR29768-46] (ab325528)

PLCZ1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-PLCZ1 antibody

Immunohistochemical analysis of paraffin-embedded Human spleen tissue labeling PLCZ1 with ab325528 at 1/500 (1.028 µg/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

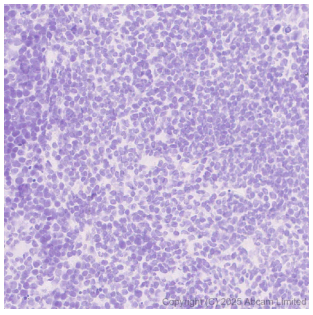
Low expression: no staining on human spleen. The primary antibody was incubated for 30 mins at room temperature.

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-PLCZ1 antibody [EPR29768-46] (ab325528)

PLCZ1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-PLCZ1 antibody

Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue labeling PLCZ1 with ab325528 at 1/1000 (1.028 µg/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Low expression: no staining on mouse spleen (PMID:14697805). 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

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