abcam

ab327424

Anti-PI 3 Kinase p110 delta antibody [EPR30972-532]

Recombinant | RabMAb | 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	EPR30972-532
Purification technique	Affinity purification Protein A
Concentration	0.519 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	1/2000

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

Species	Human
Dilution info	1/100 - 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	1/100
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Species	Mouse
Dilution info	1/50
Notes	-

Not recommended

Species	Rat, Transfected cell line - Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Species	Mouse
Dilution info	1/1000
Notes	-

Not recommended

Species	Rat, Transfected cell line - Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat, Transfected cell line - Human
Dilution info	-
Notes	-

Target data

See full target information PIK3CD

Function Phosphoinositide-3-kinase (PI3K) phosphorylates phosphatidylinositol (PI) and its phosphorylated derivatives at position 3 of the inositol ring to produce 3-phosphoinositides (PubMed:9235916). Uses ATP and PtdIns(4,5)P2 (phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3) (PubMed:15135396). PIP3 plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDPK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Mediates immune responses. Plays a role in B-cell development, proliferation, migration, and function. Required for B-cell receptor (BCR) signaling. Mediates B-cell proliferation response to anti-IgM, anti-CD40 and IL4 stimulation. Promotes cytokine production in response to TLR4 and TLR9.

Required for antibody class switch mediated by TLR9. Involved in the antigen presentation function of B-cells. Involved in B-cell chemotaxis in response to CXCL13 and sphingosine 1-phosphate (S1P). Required for proliferation, signaling and cytokine production of naive, effector and memory T-cells. Required for T-cell receptor (TCR) signaling. Mediates TCR signaling events at the immune synapse. Activation by TCR leads to antigen-dependent memory T-cell migration and retention to antigenic tissues. Together with PIK3CG participates in T-cell development. Contributes to T-helper cell expansion and differentiation. Required for T-cell migration mediated by homing receptors SELL/CD62L, CCR7 and S1PR1 and antigen dependent recruitment of T-cells. Together with PIK3CG is involved in natural killer (NK) cell development and migration towards the sites of inflammation. Participates in NK cell receptor activation. Plays a role in NK cell maturation and cytokine production. Together with PIK3CG is involved in neutrophil chemotaxis and extravasation. Together with PIK3CG participates in neutrophil respiratory burst. Plays important roles in mast-cell development and mast cell mediated allergic response. Involved in stem cell factor (SCF)-mediated proliferation, adhesion and migration. Required for allergen-IgE-induced degranulation and cytokine release. The lipid kinase activity is required for its biological function. Isoform 2 may be involved in stabilizing total RAS levels, resulting in increased ERK phosphorylation and increased PI3K activity.

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

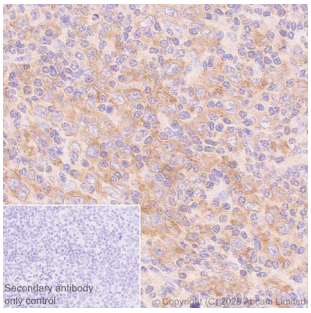
We do not recommend this combination. It is not covered by our product promise.

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.

12 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PI 3 Kinase p110 delta antibody [EPR30972-532] (ab327424)

PI 3 Kinase p110 delta Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human Hodgkin lymphoma using rabbit Anti-PI 3 Kinase p110 delta antibody

Immunohistochemical analysis of paraffin-embedded Human Hodgkin lymphoma tissue labeling with ab327424 at 1/100 (5.19 µg/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in human Hodgkin lymphoma.

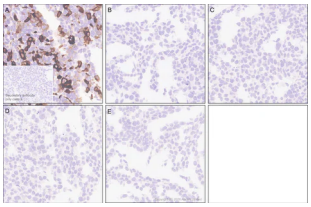
The primary antibody was incubated for 30 mins at room temperature.

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-PI 3 Kinase p110 delta antibody [EPR30972-532] (ab327424)

PI 3 Kinase p110 delta Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-PI 3 Kinase p110 delta antibody

Immunohistochemical analysis of paraffin-embedded (A) HEK-293T (human epithelial cell line from embryonic kidney) transfected with a human PIK3CD expression vector containing a Myc-His tag. (B) HEK-293T transfected with a human PIK3CB expression vector containing a Myc-His tag. (C) HEK-293T transfected with a human PIK3CA expression vector containing a Myc-His tag. (D) HEK-293T transfected with a human PIK3CG expression vector containing a Myc-His tag. (E) HEK-293T transfected with empty vector containing a Myc-His tag. tissue labeling with ab327424 at 1/2000 (0.26 µg/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in (A) HEK-293T transfected with a human PIK3CD expression vector containing a Myc-His tag, and no signal in (B) HEK-293T transfected with a human PIK3CB expression vector containing a Myc-His tag, (C) HEK-293T transfected with a human PIK3CA expression vector containing a Myc-His tag, (D) HEK-293T transfected with a human PIK3CG expression vector containing a Myc-His tag and (E) HEK-293T transfected with empty vector containing a Myc-His tag.

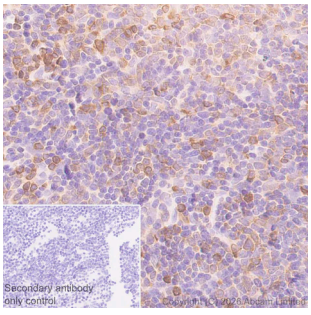
The primary antibody was incubated for 30 mins at room temperature.

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).

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PI 3 Kinase p110 delta antibody [EPR30972-532] (ab327424)

PI 3 Kinase p110 delta Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human thymoma using rabbit Anti-PI 3 Kinase p110 delta antibody

Immunohistochemical analysis of paraffin-embedded Human thymoma tissue labeling with ab327424 at 1/100 (5.19 µg/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in human thymoma.

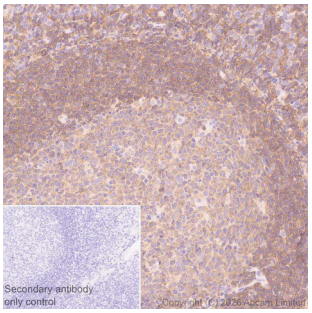
The primary antibody was incubated for 30 mins at room temperature.

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-PI 3 Kinase p110 delta antibody [EPR30972-532] (ab327424)

PI 3 Kinase p110 delta Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human tonsil using rabbit Anti-PI 3 Kinase p110 delta antibody

Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling with ab327424 at 1/100 (5.19 µg/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in human tonsil.

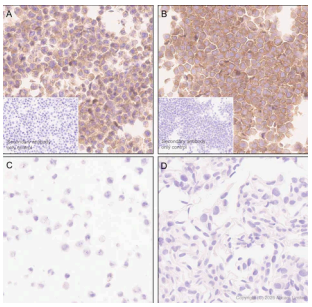
The primary antibody was incubated for 30 mins at room temperature.

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-PI 3 Kinase p110 delta antibody [EPR30972-532] (ab327424)

PI 3 Kinase p110 delta Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-PI 3 Kinase p110 delta antibody

Immunohistochemical analysis of paraffin-embedded (A) Raji (human Burkitt's lymphoma B lymphocyte) cell pellets (B) THP-1 (human monocytic leukemia monocyte) cell pellets (C) HEL (human erythroleukemia erythroblast) cell pellets (D) BxPC-3 (human pancreas adenocarcinoma epithelial cell) cell pellets tissue labeling with ab327424 at 1/500 (1.038 µg/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in (A) Raji (human Burkitt's lymphoma B lymphocyte), (B) THP-1 (human monocytic leukemia monocyte)

and no staining in (C) HEL (human erythroleukemia erythroblast) and (D) BxPC-3 (human pancreas adenocarcinoma epithelial cell).

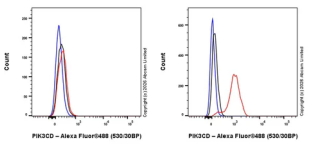
The primary antibody was incubated for 30 mins at room temperature.

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



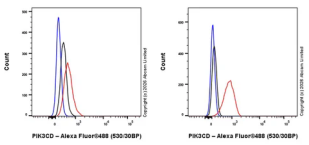
Flow Cytometry (Intracellular) - Anti-PI 3 Kinase p110 delta antibody [EPR30972-532] (ab327424)

PI 3 Kinase p110 delta Flow Cytometry (Intracellular) staining of Raji (human Burkitt's lymphoma B lymphocyte, Right) using rabbit Anti-PI 3 Kinase p110 delta antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Raji (human Burkitt's lymphoma B lymphocyte, Right) BxPC-3 (human pancreas adenocarcinoma epithelial cell, Left) cells labelling with ab327424 at 1/50 dilution (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.

Low expression: BxPC-3.



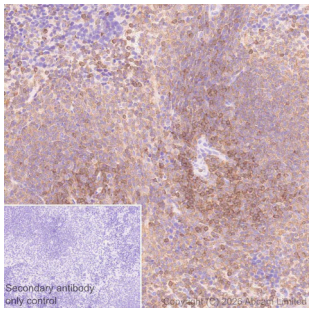
Flow Cytometry (Intracellular) - Anti-PI 3 Kinase p110 delta antibody [EPR30972-532] (ab327424)

PI 3 Kinase p110 delta Flow Cytometry (Intracellular) staining of RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage, Right) using rabbit Anti-PI 3 Kinase p110 delta antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage, Right) NIH/3T3 (mouse embryonic fibroblast, Left) cells labelling with ab327424 at 1/50 dilution (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.

Low expression: NIH/3T3.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PI 3 Kinase p110 delta antibody [EPR30972-532] (ab327424)

PI 3 Kinase p110 delta Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse spleen using rabbit Anti-PI 3 Kinase p110 delta antibody

Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue labeling with ab327424 at 1/100 (5.19 µg/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in mouse spleen.

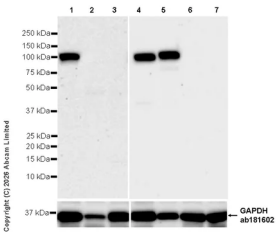
The primary antibody was incubated for 30 mins at room temperature.

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



Western blot - Anti-PI 3 Kinase p110 delta antibody [EPR30972-532] (ab327424)

PI 3 Kinase p110 delta Western blot staining using rabbit Anti-PI 3 Kinase p110 delta antibody

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

Low expression: bEnd.3, CT26.WT, HEL, BxPC-3

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) (1:200000) (36KDa).

Exposure time: Lanes 1-3: 180 seconds; Lanes 4-7: 37 seconds

All lanes:
Western blot - Anti-PI 3 Kinase p110 delta antibody [EPR30972-532] (ab327424) at 1/1000 dilution

Lane 1:
EL4 (mouse lymphoma T lymphocyte) whole cell lysate at 48 µg

Lane 2:
bEnd.3 (mouse brain endothelial cell) whole cell lysate at 48 µg

Lane 3:
CT26.WT (mouse colon fibroblast) whole cell lysate at 48 µg

Lane 4:
Raji (human Burkitt's lymphoma B lymphocyte) whole cell lysate at 48 µg

Lane 5:
THP-1 (human monocytic leukemia monocyte) whole cell lysate at 48 µg

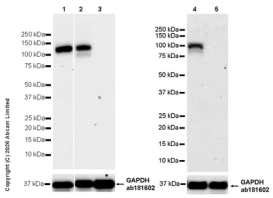
Lane 6:
HEL (human erythroleukemia erythroblast) whole cell lysate at 48 µg

Lane 7:
BxPC-3 (human pancreas adenocarcinoma epithelial cell) whole cell lysate at 48 µg

Secondary

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

Observed band size: 119 kDa, 36 kDa



Western blot - Anti-PI 3 Kinase p110 delta antibody [EPR30972-532] (ab327424)

PI 3 Kinase p110 delta Western blot staining using rabbit Anti-PI 3 Kinase p110 delta antibody

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

Low expression: skeletal muscle, NIH/3T3

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) (1:200000) (36KDa).

Exposure time: Lanes 1-3: 37 seconds; Lanes 4-5: 180 seconds

All lanes:
Western blot - Anti-PI 3 Kinase p110 delta antibody [EPR30972-532] (ab327424) at 1/1000 dilution

Lane 1:
Mouse spleen tissue lysate at 48 µg

Lane 2:
Mouse thymus tissue lysate at 48 µg

Lane 3:
Mouse skeletal muscle tissue lysate at 48 µg

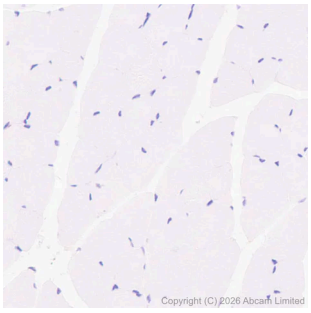
Lane 4:
RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 48 µg

Lane 5:
NIH/3T3 (mouse embryonic fibroblast) whole cell lysate at 48 µg

Secondary

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

Observed band size: 119 kDa, 36 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PI 3 Kinase p110 delta antibody [EPR30972-532] (ab327424)

PI 3 Kinase p110 delta Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse skeletal muscle using rabbit Anti-PI 3 Kinase p110 delta antibody

Immunohistochemical analysis of paraffin-embedded Mouse skeletal muscle tissue labeling with ab327424 at 1/100 (5.19 µg/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: No staining in mouse skeletal muscle.

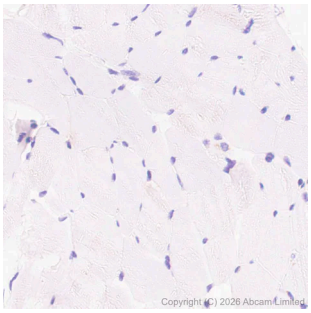
The primary antibody was incubated for 30 mins at room temperature.

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-PI 3 Kinase p110 delta antibody [EPR30972-532] (ab327424)

PI 3 Kinase p110 delta Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human skeletal muscle using rabbit Anti-PI 3 Kinase p110 delta antibody

Immunohistochemical analysis of paraffin-embedded Human skeletal muscle tissue labeling with ab327424 at 1/100 (5.19 µg/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: No staining in human skeletal muscle.

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'.