abcam

ab315346

Anti-CD37 antibody [EPR28769-31]

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	EPR28769-31
Purification technique	Affinity purification Protein A
Concentration	0.513 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Mouse
Dilution info	1/30
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse
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	Human, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	1/50
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

mIHC

Tested

Species	Mouse
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	Human, Rat

Dilution info	-
Notes	-

Target data

See full target information Cd37

Function	Structural component of specialized membrane microdomains known as tetraspanin-enriched microdomains (TERMs), which act as platforms for receptor clustering and signaling. Participates thereby in diverse biological functions such as cell signal transduction, adhesion, migration and protein trafficking (PubMed:10891477). Upon ligand binding, two signaling pathways are activated, one acting through phosphorylation by LYN leading to cell death or a survival pathway with activation of GSK3B (By similarity). Plays an essential role for clustering of integrin ITGA4/ITGB1 and promotes its mobility in the plasma membrane of B-cells. In turn, participates in ITGA4/ITGB1 integrin-mediated antiapoptotic signaling through AKT (PubMed:23150881). Also plays a role in the migration of dendritic cells and neutrophils to draining lymph nodes, as well as in their integrin-mediated adhesion (PubMed:23420539, PubMed:26566675). Negatively regulates IL-6 responses through direct interaction with SOCS3 thereby preventing constitutive IL-6 signaling (By similarity). Alternatively, inhibition of IL-6 signaling can also occur via interaction and stabilization of DECTIN1/CLEC7A at the cell membrane to inhibit its ability to promote the production of IL-6 (By similarity).

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

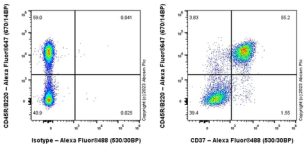
We do not recommend this combination. It is not covered by our product promise.

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.

10 product images

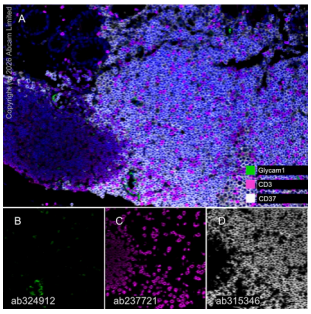


Flow Cytometry - Anti-CD37 antibody [EPR28769-31] (ab315346)

Flow cytometric analysis of Mouse splenocytes cells labelling CD37 with ab315346 at 1/50 dilution (1 ug, Right) compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control.

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

Gated on viable cells. Cells are co-stained with CD45R/B220 conjugated to Alexa Fluor®647.



Multiplex immunohistochemistry - Anti-CD37 antibody [EPR28769-31] (ab315346)

CD37 Multiplex immunohistochemistry staining of Mouse colon using rabbit Anti-CD37 antibody

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded mouse colon tissue staining Glycam1 with ab324912 at a 1/4000 (0.126 µg/ml) dilution, ab237721 anti-CD3 used at 1/2000 dilution (0.26 µg/ml) and ab315346 anti-CD37 used at 1/2000 dilution (0.257 µg/ml). Panel A: anti-Glycam1 (green; Opal™520), anti-CD3 (magenta; Opal™690), anti-CD37 (gray; Opal™570) on mouse colon.

Panel B: anti-Glycam1 staining HEV (highly endothelial venules) in mouse colon.

Panel C: anti-CD3 staining T lymphocytes in mouse colon.

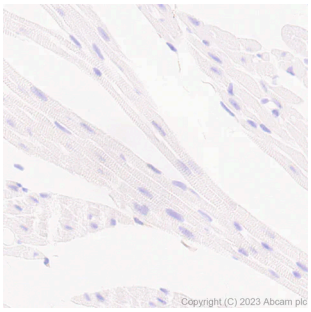
Panel D: anti-CD37 staining B lymphocytes in mouse colon.

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

The section was incubated in three rounds of staining: in the order of ab324912, ab237721 and ab315346 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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD37 antibody [EPR28769-31] (ab315346)

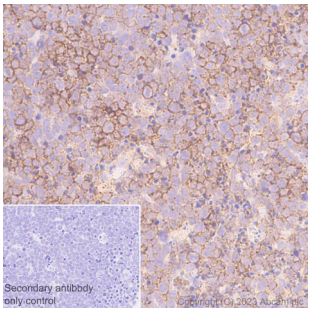
CD37 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse cardiac muscle using rabbit Anti-CD37 antibody

Immunohistochemical analysis of paraffin-embedded Mouse cardiac muscle tissue labeling CD37 with ab315346 at 1/2000 (0.257 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: No staining on mouse cardiac muscle. The section was incubated with ab315346 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.



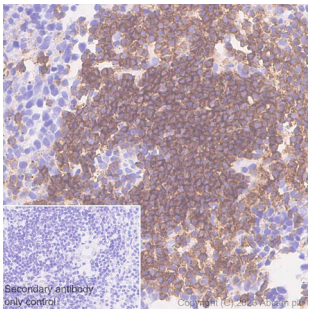
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD37 antibody [EPR28769-31] (ab315346)

Immunohistochemical analysis of paraffin-embedded Mouse Burkitt's lymphoma tissue labeling CD37 with ab315346 at 1/2000 (0.257 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on mouse Burkitt's lymphoma. The section was incubated with ab315346 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.



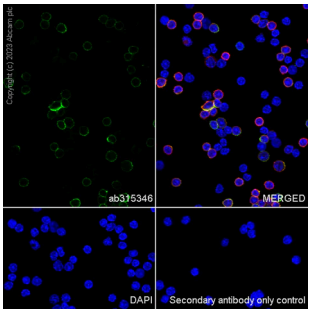
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD37 antibody [EPR28769-31] (ab315346)

Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue labeling CD37 with ab315346 at 1/2000 (0.257 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on mouse spleen (PMID: 19282981). The section was incubated with ab315346 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.



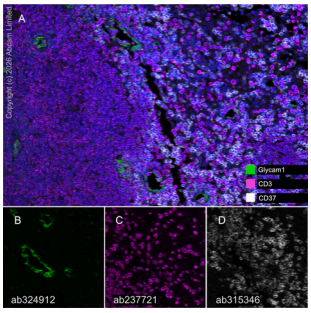
Immunocytochemistry/ Immunofluorescence - Anti-CD37 antibody [EPR28769-31] (ab315346)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Tween-20 permeabilized mouse splenocytes cells labelling CD37 with ab315346 at 1/500 (1.026 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 (2 ug/ml) dilution (Green).

Confocal image showing membranous staining in subsets of mouse splenocytes, which is co-localized with anti-CD45R. Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8).

Anti-human/mouse CD45R/B220 rat monoclonal antibody (Alexa Fluor® 647) was used to counterstain at 1/100 (5 ug/ml) dilution (Red). 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 (2 ug/ml) dilution.



Multiplex immunohistochemistry - Anti-CD37 antibody [EPR28769-31] (ab315346)

CD37 Multiplex immunohistochemistry staining of Mouse lymph node using rabbit Anti-CD37 antibody

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded mouse lymph node tissue staining Glycam1 with ab324912 at a 1/4000 (0.126 µg/ml) dilution, ab237721 anti-CD3 used at 1/2000 dilution (0.26 µg/ml) and ab315346 anti-CD37 used at 1/2000 dilution (0.257 µg/ml).
Panel A: anti-Glycam1 (green; Opal™520), anti-CD3 (magenta; Opal™690), anti-CD37 (gray; Opal™570) on mouse lymph node.

Panel B: anti-Glycam1 staining HEV (highly endothelial venules) in mouse lymph node.

Panel C: anti-CD3 staining T lymphocytes in mouse lymph node.

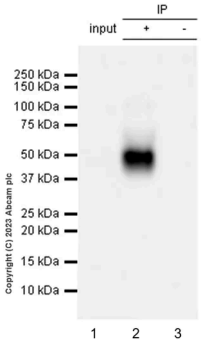
Panel D: anti-CD37 staining B lymphocytes in mouse lymph node.

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

The section was incubated in three rounds of staining: in the order of ab324912, ab237721 and ab315346 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.



Immunoprecipitation - Anti-CD37 antibody [EPR28769-31] (ab315346)

CD37 was immunoprecipitated from 0.35 mg Mouse spleen whole cell lysate with ab315346 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab315346 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: Mouse spleen whole cell lysate

Lane 2: ab315346 IP in Mouse spleen whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab315346 in mouse spleen whole cell lysate

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

All lanes:
Immunoprecipitation - Anti-CD37 antibody [EPR28769-31] (ab315346) at 1/30 dilution

All lanes:
Mouse spleen whole cell lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 10s



Western blot - Anti-CD37 antibody [EPR28769-31] (ab315346)

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

Negative control: Mouse heart.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-CD37 antibody [EPR28769-31] (ab315346) at 1/1000 dilution

Lane 1:
Mouse spleen tissue lysate at 20 µg

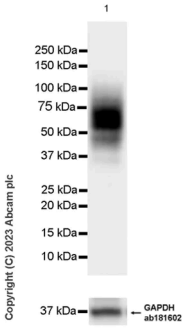
Lane 2:
Mouse heart tissue lysate at 20 µg

Secondary

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

Observed band size: 40-60 kDa, 36 kDa

Exposure time: 37s



Western blot - Anti-CD37 antibody [EPR28769-31] (ab315346)

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

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-CD37 antibody [EPR28769-31] (ab315346) at 1/1000 dilution

All lanes:
WEHI-231 (mouse B cell lymphoma B lymphocyte) 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: 40-60 kDa, 36 kDa

Exposure time: 37s

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