abcam

ab324101

Anti-CD18 antibody [EPR29884-566]

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	EPR29884-566
Purification technique	Affinity purification Protein A
Concentration	0.509 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	1/500 - 1/5000
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/50
Notes	-

IHC-P

Tested

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.

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Target data

See full target information Itgb2

Function

Integrin ITGAL/ITGB2 is a receptor for ICAM1, ICAM2, ICAM3 and ICAM4. Integrin ITGAL/ITGB2 is also a receptor for the secreted form of ubiquitin-like protein ISG15; the interaction is mediated by ITGAL (By similarity). Integrins ITGAM/ITGB2 and ITGAX/ITGB2 are receptors for the iC3b fragment of the third complement component and for fibrinogen. Integrin ITGAX/ITGB2 recognizes the sequence G-P-R in fibrinogen alpha-chain. Integrin ITGAM/ITGB2 recognizes P1 and P2 peptides of fibrinogen gamma chain. Integrin ITGAM/ITGB2 is also a receptor for factor X. Integrin ITGAD/ITGB2 is a receptor for ICAM3 and VCAM1. Contributes to natural killer cell cytotoxicity (By similarity). Involved in leukocyte adhesion and transmigration of leukocytes including T-cells and neutrophils (By similarity). Triggers neutrophil transmigration during lung injury through PTK2B/PYK2-mediated activation (PubMed:18587400). Integrin ITGAL/ITGB2 in association with ICAM3, contributes to apoptotic neutrophil phagocytosis by macrophages (By similarity). In association with alpha subunit ITGAM/CD11b, required for CD177-PRTN3-mediated activation of TNF primed neutrophils (By similarity). Integrin

ITGAM/ITGB2 plays a critical role in mast cell development and in immune complex-mediated glomerulonephritis. Mice expressing a null mutation of the ITGAM subunit gene demonstrate increase in neutrophil accumulation, in response to a impaired degranulation and phagocytosis, events that apparently accelerate apoptosis in neutrophils. These mice develop obesity. Integrins ITGAX:ITGB2 functions as a receptor of the erythrocyte-specific adhesion molecule ICAM4 and mediates erythrophagocytosis. Integrins ITGAX:ITGB2 functions as a receptor of the neuron-specific adhesion molecule ICAM5 ensuring neuron cell-leukocyte adhesion. Integrin ITGAL:ITGB2 functions as a receptor of ICAM1 by acting as a platform at the immunological synapse to translate TCR engagement and density of the ITGAL ligand ICAM1 into graded adhesion. Integrin ITGAM:ITGB2/MAC-1 complex functions as a signaling receptor for the ligand receptor ICAM1, ensuring adhesion between stimulated neutrophils and stimulated endothelial cells. Integrin ITGAL/ITGB2 that functions as a signaling receptor of ICAM2, ensuring leukocyte cell-cell adhesion on resting cells (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.

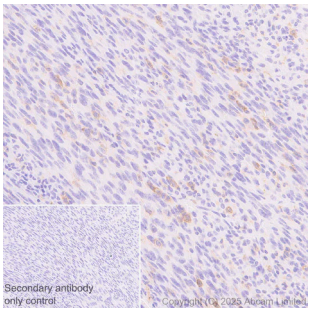
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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11 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD18 antibody [EPR29884-566] (ab324101)

CD18 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse glioblastoma using rabbit Anti-CD18 antibody

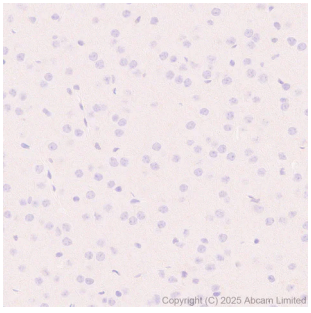
Immunohistochemical analysis of paraffin-embedded Mouse glioblastoma tissue labeling CD18 with ab324101 at 1/100 (5.09 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on mouse glioblastoma. 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-CD18 antibody [EPR29884-566] (ab324101)

CD18 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse cerebrum using rabbit Anti-CD18 antibody

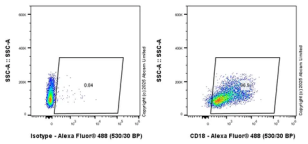
Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labeling CD18 with ab324101 at 1/100 (5.09 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Low expression tissue: no staining on mouse cerebrum. 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



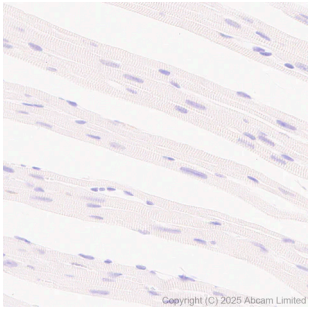
Flow Cytometry - Anti-CD18 antibody [EPR29884-566] (ab324101)

CD18 Flow Cytometry staining of Mouse spleen cell using rabbit Anti-CD18 antibody

Flow cytometric analysis of Mouse spleen cell cells labelling CD18 with ab324101 at 1/500 dilution (0.1ug) / 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.

Gated on viable cells.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD18 antibody [EPR29884-566] (ab324101)

CD18 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse cardiac muscle using rabbit Anti-CD18 antibody

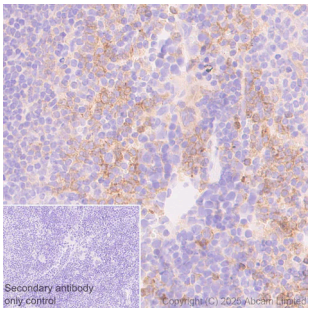
Immunohistochemical analysis of paraffin-embedded Mouse cardiac muscle tissue labeling CD18 with ab324101 at 1/100 (5.09 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Low expression tissue: no staining on mouse cardiac 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-CD18 antibody [EPR29884-566] (ab324101)

CD18 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse spleen using rabbit Anti-CD18 antibody

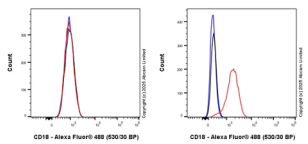
Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue labeling CD18 with ab324101 at 1/100 (5.09 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on 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



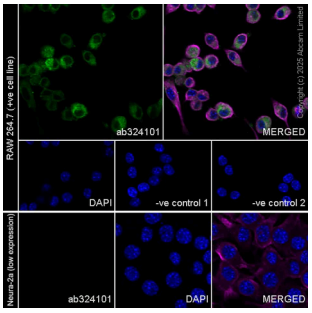
Flow Cytometry - Anti-CD18 antibody [EPR29884-566] (ab324101)

CD18 Flow Cytometry staining using rabbit Anti-CD18 antibody

Flow cytometric analysis of Neuro-2a (mouse neuroblastoma neuroblast, Left) / RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage, Right) cells labelling CD18 with ab324101 at 1/5000 dilution (0.01ug) (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: Neuro-2a.
Gated on viable cells.



Immunocytochemistry/ Immunofluorescence - Anti-CD18 antibody [EPR29884-566] (ab324101)

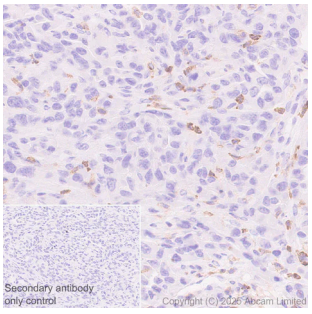
CD18 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CD18 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized RAW 264.7 (RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage)) cells labelling CD18 with ab324101 at 1/50 (10.18 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing cytoplasmic staining in RAW 264.7 cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue).
Low expression: Neuro-2a.
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).

-ve control 1: ab324101 at 1/50 dilution, followed by ab150120 Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) antibody at 1/1000 dilution.
-ve control 2: ab7291 at 1/1000 dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD18 antibody [EPR29884-566] (ab324101)

CD18 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse pancreatic tumor using rabbit Anti-CD18 antibody

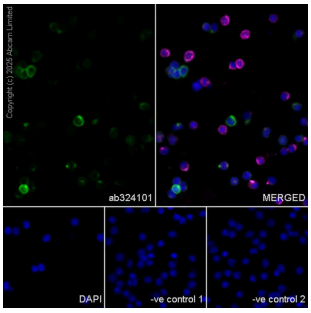
Immunohistochemical analysis of paraffin-embedded Mouse pancreatic tumor tissue labeling CD18 with ab324101 at 1/100 (5.09 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on mouse pancreatic tumor. 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-CD18 antibody [EPR29884-566] (ab324101)

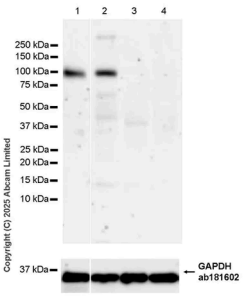
CD18 Immunocytochemistry/ Immunofluorescence staining of Mouse splenocyte using rabbit Anti-CD18 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized Mouse splenocyte cells labelling CD18 with ab324101 at 1/50 (10.18 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing cytoplasmic staining in a subset of mouse splenocytes (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).

ab7291 Anti-alpha Tubulin mouse monoclonal antibody was used to counterstain tubulin at 1/1000 dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

-ve control 1: ab324101 at 1/50 dilution, followed by ab150120 Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) antibody at 1/1000 dilution.
-ve control 2: ab7291 at 1/1000 dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution.



Western blot - Anti-CD18 antibody [EPR29884-566] (ab324101)

CD18 Western blot staining using rabbit Anti-CD18 antibody

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

Low expression: heart, hippocampus.

Samples are non-boiled as boiling may cause protein aggregation.

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

All lanes:
Western blot - Anti-CD18 antibody [EPR29884-566] (ab324101) at 1/1000 dilution

Lane 1:
Mouse lymph node tissue at 50 µg

Lane 2:
Mouse spleen tissue at 50 µg

Lane 3:
Mouse heart tissue at 50 µg

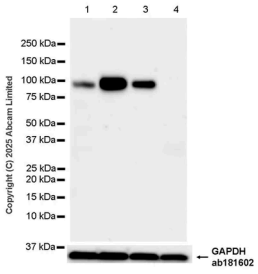
Lane 4:
Mouse hippocampus tissue at 50 µg

Secondary

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

Observed band size: 100 kDa, 36 kDa

Exposure time: 180s



Western blot - Anti-CD18 antibody [EPR29884-566] (ab324101)

CD18 Western blot staining using rabbit Anti-CD18 antibody

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

Low expression: Neuro-2a.

Samples are non-boiled as boiling may cause protein aggregation.

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

All lanes:
Western blot - Anti-CD18 antibody [EPR29884-566] (ab324101) at 1/1000 dilution

Lane 1:
A20 (mouse reticulum sarcoma B lymphocyte) whole cell lysate at 50 µg

Lane 2:
J774A.1 (mouse reticulum cell sarcoma monocyte/macrophage) whole cell lysate at 50 µg

Lane 3:

RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 50 µg

Lane 4:
Neuro-2a (mouse neuroblastoma neuroblast) whole cell lysate at 50 µg

Secondary

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

Observed band size: 100 kDa, 36 kDa

Exposure time: 48s

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