abcam

ab316855

Anti-TIM 1 antibody [EPR28341-72] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR28341-72
Purification technique	Affinity purification Protein A
Concentration	1.023 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Transfected cell lysate - Mouse, Mouse
Dilution info	-

Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Mouse
Dilution info	-
Notes	-

IP

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Mouse
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Mouse
Dilution info	-
Notes	-

Target data

See full target information Havcr1

Function

Phosphatidylserine receptor that plays an important functional role in regulatory B-cell homeostasis including generation, expansion and suppressor functions (PubMed:21821911, PubMed:25645598, PubMed:32668241). As P-selectin/SELPLG ligand, plays a specialized role in activated but not naive T-cell trafficking during inflammatory responses (PubMed:24703780). Controls thereby T-cell accumulation in the inflamed central nervous system (CNS) and the induction of autoimmune disease (PubMed:24703780). Also regulates expression of various anti-inflammatory cytokines and co-inhibitory ligands including IL10 (PubMed:25582854, PubMed:25645598). Acts as a regulator of T-cell proliferation (PubMed:15793576). Confers phagocytic ability on injured kidney epithelial cells, allowing them to bind to and internalize apoptotic bodies and necrotic debris following kidney injury (By similarity). The ectodomain binds to the surface of apoptotic kidney epithelial cells via phosphatidylserine and oxidized phospholipids exposed on the cell membrane of the apoptotic cells (By similarity). HAVCR1-expressing cells are also capable of phagocytosing Gram-negative and Gram-positive bacteria (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab316855 is the carrier-free version of ab316854.

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.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	TIM 1 also known as T-cell immunoglobulin and mucin domain 1 is a cell surface protein with a molecular mass of approximately 70 to 80 kDa. It is expressed predominantly in activated T cells and some epithelial cells. TIM 1 plays an important role in immune regulation and can be found at the surface of cells in various tissues including the liver and kidney. This protein can interact with other components which can influence immune response in the host.
Biological function summary	The TIM 1 protein functions as a receptor involved in T cell activity modulation and innate immune response regulation. It is known to bind phosphatidylserine on apoptotic cells which fosters communication between dying cells and phagocytes. TIM 1 does not typically exist as part of a larger complex but its interactions with other molecules is important for its role in the immune system. The protein's activity influences cytokine production and this can affect inflammation processes.
Pathways	TIM 1 is involved in key immune response pathways like the signaling pathways of T cells and the broader adaptive immune response. This protein has been linked with the enhancement of Th2 cytokine production impacting allergic response signaling. It interacts with related proteins like TIM 3 and TIM 4 which together contribute to the fine-tuning of immune responses. Understanding TIM 1 within these pathways helps in grasping its regulatory potential in T-cell mediated immunity.
Associated diseases and disorders	TIM 1 is implicated in conditions such as asthma and systemic lupus erythematosus (SLE). In asthma improperly regulated Th2 immune responses involve TIM 1 which can exacerbate allergic inflammations. This protein also plays a role in the pathogenesis of SLE a systemic autoimmune disease where TIM 1's regulation of immune tolerance and inflammation is critical. TIM 1's involvement with other proteins like IL-4 and IL-13 in these disorders further highlights its significance in immune dysregulation processes.

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

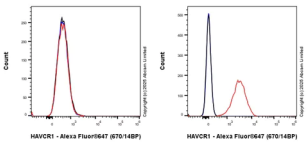
We do not recommend this combination. It is not covered by our product promise.

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.

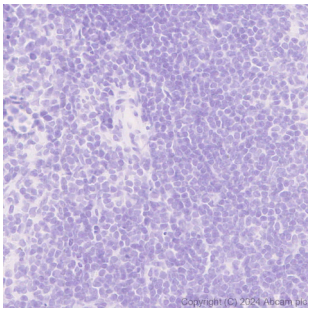
9 product images



Flow Cytometry - Anti-TIM 1 antibody [EPR28341-72] - BSA and Azide free (ab316855)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab316854).
Flow cytometric analysis of MEF (mouse embryo fibroblast, Left) / A20 (mouse reticulum sarcoma B lymphocyte, Right) cells labelling TIM 1 with ab316854 at 1/500 dilution (1µg) (Red) followed by a Goat anti-Rabbit IgG (Alexa Fluor® 647, ab150083) secondary antibody used at a 1/5000 dilution compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Low expression: MEF.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TIM 1 antibody [EPR28341-72] - BSA and Azide free (ab316855)

TIM 1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse spleen using rabbit Anti-TIM 1 antibody

This data was developed using ab316854, the same antibody clone in a different buffer formulation.

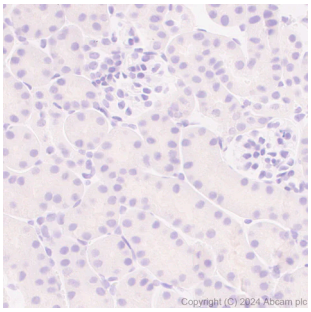
Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue labeling TIM 1 with ab316854 at 1/2000 (0.252 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: No staining on mouse spleen.
The section was incubated with ab316854 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-TIM 1 antibody [EPR28341-72] - BSA and Azide free (ab316855)

TIM 1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse normal kidney using rabbit Anti-TIM 1 antibody

This data was developed using ab316854, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Mouse normal kidney tissue labeling TIM 1 with ab316854 at 1/2000 (0.252 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

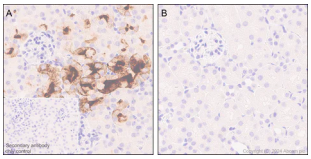
Negative control: No staining on mouse normal kidney (PMID: 17277130).
The section was incubated with ab316854 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

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-TIM 1 antibody [EPR28341-72] - BSA and Azide free (ab316855)

This data was developed using ab316854, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded (A) Injured mouse kidney (cisplatin-induced acute kidney injury). (B) Control mouse kidney. tissue labeling TIM 1 with ab316854 at 1/2000 (0.252 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

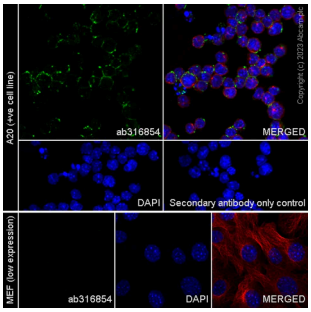
Positive staining on (A) Injured mouse kidney (cisplatin-induced acute kidney injury), no staining on (B)control kidney (PMID: 34298880).
The section was incubated with ab316854 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

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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Immunocytochemistry/ Immunofluorescence - Anti-TIM 1 antibody [EPR28341-72] - BSA and Azide free (ab316855)

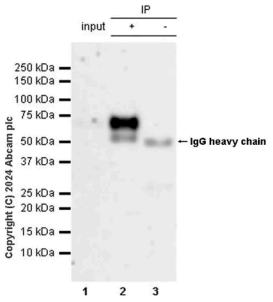
This data was developed using ab316854, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized A20 (mouse reticulum sarcoma B lymphocyte) cells labelling TIM 1 with ab316854 at 1/100 (5.03 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 A20 cell line (shown in green). The counterstain was observed in red. Nuclear DNA was labeled with DAPI (shown in blue).
Low expression: MEF.
Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 (2.5 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.



Immunoprecipitation - Anti-TIM 1 antibody [EPR28341-72] - BSA and Azide free (ab316855)

This data was developed using ab316854, the same antibody clone in a different buffer formulation.

TIM 1 was immunoprecipitated from 0.35 mg A20 (mouse reticulum sarcoma B lymphocyte) whole cell lysate with ab316854 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab316854 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: A20 (mouse reticulum sarcoma B lymphocyte) whole cell lysate
Lane 2: ab316854 IP in A20 (mouse reticulum sarcoma B lymphocyte) whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab316854 in A20 whole cell lysate

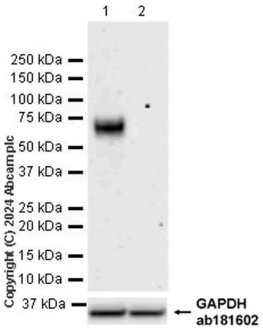
All lanes:
Immunoprecipitation - Anti-TIM 1 antibody [EPR28341-72] (ab316854) at 1/30 dilution

All lanes:
A20 (mouse reticulum sarcoma B lymphocyte) whole cell lysate at 10 µg

Secondary

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

Exposure time: 93s



Western blot - Anti-TIM 1 antibody [EPR28341-72] - BSA and Azide free (ab316855)

TIM 1 Western blot staining using rabbit Anti-TIM 1 antibody

This data was developed using ab316854, the same antibody clone in a different buffer formulation.

Negative control: normal kidney (PMID: 21576461).

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

All lanes:
Western blot - Anti-TIM 1 antibody [EPR28341-72] (ab316854) at 1/1000 dilution

Lane 1:
Mouse injured kidney tissue lysate (cisplatin-induced acute kidney injury) at 20 µg

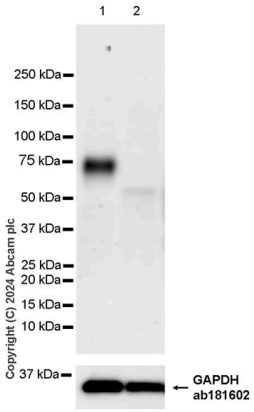
Lane 2:
Mouse kidney tissue lysate at 20 µg

Secondary

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

Observed band size: 75 kDa

Exposure time: 180s



Western blot - Anti-TIM 1 antibody [EPR28341-72] - BSA and Azide free (ab316855)

TIM 1 Western blot staining using rabbit Anti-TIM 1 antibody

This data was developed using ab316854, the same antibody clone in a different buffer formulation.

Low expression: MEF.

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

All lanes:
Western blot - Anti-TIM 1 antibody [EPR28341-72] (ab316854) at 1/1000 dilution

Lane 1:
A20 (mouse reticum sarcoma B lymphocyte) whole cell lysate at 20 µg

Lane 2:
MEF (mouse embryonic fibroblast (immortalized)) whole cell lysate at 20 µg

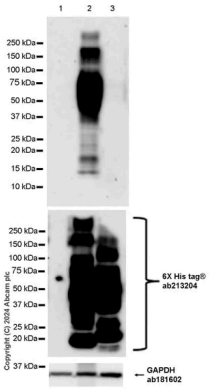
Secondary

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

Developed using the ECL technique.

Observed band size: 75 kDa, 36 kDa

Exposure time: 70s



Western blot - Anti-TIM 1 antibody [EPR28341-72] - BSA and Azide free (ab316855)

TIM 1 Western blot staining using rabbit Anti-TIM 1 antibody

This data was developed using ab316854, the same antibody clone in a different buffer formulation.

This antibody does not cross-react with mouse Timd2.

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

In Western blot, Anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204) staining at 1/5000 dilution.

All lanes:
Western blot - Anti-TIM 1 antibody [EPR28341-72] (ab316854) at 1/1000 dilution

Lane 1:
293T (human embryonic kidney epithelial cell) transfected with an empty vector containing a myc-His-tag®, whole cell lysate at 20 µg

Lane 2:
293T transfected with a mouse TIM 1 expression vector containing a myc-His-tag®, whole cell lysate at 20 µg

Lane 3:
293T transfected with a mouse Timd2 expression vector containing a myc-His-tag®, 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: 20-250 kDa, 36 kDa

Exposure time: 180s

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