abcam

ab228973

Anti-TIM 1 antibody [EPR22650-136]

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	EPR22650-136
Purification technique	Affinity purification Protein A
Concentration	0.521 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	Please do not boil the lysate prior to loading it into the gel.

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Not recommended

Species	Mouse, Rat
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 (By similarity). 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 (By similarity). Acts as a regulator of T-cell proliferation (By similarity). Confers phagocytic ability on injured kidney epithelial cells, allowing them to bind to and internalize apoptotic bodies and necrotic debris following kidney injury (PubMed:18414680). 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 (PubMed:18414680). HAVCR1-expressing cells are also capable of phagocytosing Gram-negative and Gram-positive bacteria (PubMed:18414680). (Microbial infection) Acts as a receptor for Hepatitis A virus. (Microbial infection) Acts as a receptor for Ebolavirus and Marburg virus by binding exposed phosphatidyl-serine at the surface of virion membrane (PubMed:21536871). Serves as a dual receptor for Ebolavirus by also interacting with envelope glycoprotein GP (PubMed:26487564). (Microbial infection) Acts as a receptor for Dengue virus by binding exposed phosphatidyl-serine at the surface of virion membrane (PubMed:23084921). TIM1 and Dengue virus are co-internalized during virus entry (PubMed:29742433). (Microbial infection) Acts as a receptor for Zika virus by binding to envelope protein E. (Microbial infection) Plays a positive role in Chikungunya virus cell entry.

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.

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

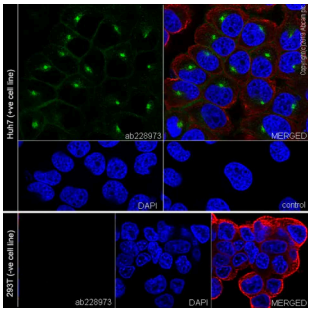
We do not recommend this combination. It is not covered by our product promise.

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.

3 product images

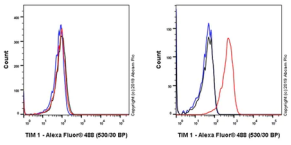


Immunocytochemistry/ Immunofluorescence - Anti-TIM 1 antibody [EPR22650-136] (ab228973)

TIM 1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-TIM 1 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized Huh7 (human hepatocellular carcinoma epithelial cell) cells labeling TIM 1 with ab228973 at 1/100 (5.3µg/ml) dilution, followed by ab150077 AlexaFluor® 488 Goat anti-Rabbit secondary antibody at 1/1000 (2µg/ml) dilution (Green). Confocal image showing cytoplasmic punctate and membranous staining in Huh7 cell line (PMID:23233528) is observed. ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).
Secondary antibody only control/ Used PBS instead of primary antibody, secondary antibody is ab150077 AlexaFluor® 488 Goat anti-Rabbit secondary at 1/1000 (2 µg/ml) dilution.

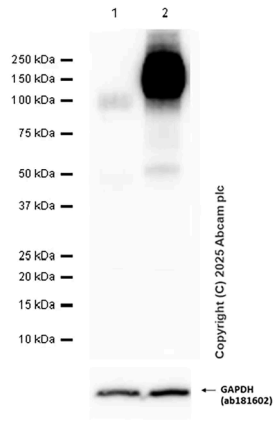
Negative control: HEK-293T （PMID: 23084921).



Flow Cytometry - Anti-TIM 1 antibody [EPR22650-136] (ab228973)

TIM 1 Flow Cytometry staining using rabbit Anti-TIM 1 antibody

Flow cytometric analysis of 293T (human embryonic kidney epithelial cell, Left) / Huh7 (human hepatocellular carcinoma epithelial cell, Right) cells labeling TIM 1 with ab228973 at 1/500 compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody. Gated on viable cells. **Negative control**: HEK-293T (PMID: 23084921).



Western blot - Anti-TIM 1 antibody [EPR22650-136] (ab228973)

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

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

Please do not boil the lysate prior to loading it into the gel.<.p>

All lanes:
Western blot - Anti-TIM 1 antibody [EPR22650-136] (ab228973) at 1/1000 dilution

Lane 1:
Boiled Huh7 (human hepatocellular carcinoma epithelial cell), whole cell lysate at 20 µg

Lane 2:
Un-boiled Huh7 (human hepatocellular carcinoma epithelial cell), whole cell lysate at 20 µg

Secondary

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

Observed band size: 140 kDa

Exposure time: 20s

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