abcam

ab233714

Anti-TIM 1 antibody [3A12E10]

Mouse Monoclonal TIM 1 antibody. Suitable for Flow Cyt, WB and reacts with Human samples. Immunogen corresponding to Recombinant Fragment Protein within Human HAVCR1 aa 50-300.

Image updates are in progress. Products remain available and covered by the Abcam Product Promise. Learn more.

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human HAVCR1 aa 50-300. The exact immunogen used to generate this antibody is proprietary information. Database link Q96D42
Clone number	3A12E10
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/200 - 1/400
Notes	-

WB

Tested

Species	Human
Dilution info	1/500 - 1/2000
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	Blue Ice

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

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

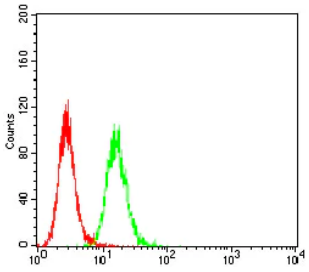
We do not recommend this combination. It is not covered by our product promise.

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.

1 product image



Flow Cytometry - Anti-TIM 1 antibody [3A12E10] (ab233714)

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

Flow cytometric analysis of HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling KIM1 with ab233714 at 1/200 dilution (green) compared with a negative control (red).

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