abcam

ab210543

Anti-TIM-3/CD366 antibody [EPR20767]

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	EPR20767
Purification technique	Affinity purification Protein A
Light chain type	kappa
Concentration	0.629 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/500
Notes	-

WB

Not recommended

Species	Human
Dilution info	-
Notes	-

Target data

See full target information TIM-3/CD366

Function

Cell surface receptor implicated in modulating innate and adaptive immune responses. Generally accepted to have an inhibiting function. Reports on stimulating functions suggest that the activity may be influenced by the cellular context and/or the respective ligand (PubMed:24825777). Regulates macrophage activation (PubMed:11823861). Inhibits T-helper type 1 lymphocyte (Th1)-mediated auto- and alloimmune responses and promotes immunological tolerance (PubMed:14556005). In CD8+ cells attenuates TCR-induced signaling, specifically by blocking NF-kappaB and NFAT promoter activities resulting in the loss of IL-2 secretion. The function may implicate its association with LCK proposed to impair phosphorylation of TCR subunits, and/or LGALS9-dependent recruitment of PTPRC to the immunological synapse (PubMed:24337741, PubMed:26492563). In contrast, shown to activate TCR-induced signaling in T-cells probably implicating ZAP70, LCP2, LCK and FYN (By similarity). Expressed on Treg cells can inhibit Th17 cell responses (PubMed:24838857). Receptor for LGALS9 (PubMed:16286920, PubMed:24337741). Binding to LGALS9 is believed to result in suppression of T-cell responses; the resulting apoptosis of antigen-specific cells may implicate HAVCR2 phosphorylation and disruption of its association with BAG6. Binding to LGALS9 is proposed to be involved in innate immune response to intracellular pathogens. Expressed on Th1 cells interacts with LGALS9 expressed on Mycobacterium tuberculosis-infected macrophages to stimulate antibactericidal activity including IL-1 beta secretion and to restrict intracellular bacterial growth (By similarity). However, the function as receptor for LGALS9 has been challenged (PubMed:23555261). Also reported to enhance CD8+ T-cell responses to an acute infection such as by Listeria monocytogenes (By similarity). Receptor for phosphatidylserine (PtSer); PtSer-binding is calcium-dependent. May recognize PtSer on apoptotic cells leading to their phagocytosis. Mediates the engulfment of

apoptotic cells by dendritic cells. Expressed on T-cells, promotes conjugation but not engulfment of apoptotic cells. Expressed on dendritic cells (DCs) positively regulates innate immune response and in synergy with Toll-like receptors promotes secretion of TNF. In tumor-imfiltrating DCs suppresses nucleic acid-mediated innate immune repsonse by interaction with HMGB1 and interfering with nucleic acid-sensing and trafficking of nucleid acids to endosomes (By similarity). Expressed on natural killer (NK) cells acts as a coreceptor to enhance IFN-gamma production in response to LGALS9 (PubMed:22323453). In contrast, shown to suppress NK cell-mediated cytotoxicity (PubMed:22383801). Negatively regulates NK cell function in LPS-induced endotoxic shock (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.

Supplementary info

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

Activity summary	TIM-3 also known as T cell immunoglobulin and mucin-domain containing-3 or HAVCR2 is a protein involved in immune regulation. It possesses an approximate mass of 35 kDa. TIM-3 is expressed on various immune cells including T cells NK cells and dendritic cells especially after activation. The expression level often changes in response to inflammatory conditions suggesting its role in modulating immune responses.
Biological function summary	TIM-3 functions as a checkpoint inhibitor impacting immune cell activity. It is not part of a larger physical complex but it modulates immune responses by interacting with its ligands such as Galectin-9 phosphatidylserine and CEACAM1. TIM-3 involvement in downregulating Th1 cell responses shows its necessary role in maintaining immune homeostasis. The protein also acts in regulating tolerance mechanisms and preventing autoimmunity.
Pathways	TIM-3 participation is seen in the immune checkpoint and T cell exhaustion pathways. TIM-3 signaling results in T cell inhibition affecting the PD-1 pathway as well. It shares a relationship with proteins like LAG-3 and PD-1 which are key to immune inhibitory signaling. These interactions depict TIM-3's role in immune tolerance during chronic infections and malignancies.
Associated diseases and disorders	TIM-3 association with cancer and chronic infections provides insight into therapeutic implications. In cancer TIM-3 contributes to immune evasion often co-expressed with PD-1 leading to T cell exhaustion. In autoimmune diseases TIM-3 modulation may affect disease progression by influencing immune tolerance. Understanding TIM-3's role in these contexts aids in developing targeted therapies such as anti-TIM-3 antibodies to enhance immune responses in cancer while promoting tolerance in autoimmunity.

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

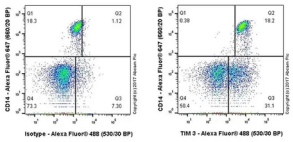
We do not recommend this combination. It is not covered by our product promise.

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.

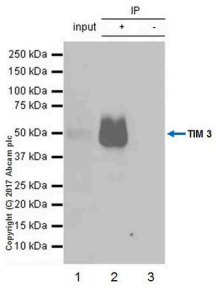
2 product images



Flow Cytometry - Anti-TIM-3/CD366 antibody [EPR20767] (ab210543)

TIM-3/CD366 Flow Cytometry staining using rabbit Anti-TIM-3/CD366 antibody

Flow cytometric analysis of human peripheral blood mononuclear cells (PBMCs) labeling TIM 3 with ab210543 at 1/500 dilution (right panel) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (left panel). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.
Co-staining with anti-CD14 (y-axis). CD14+ PBMCs were positive for TIM 3 (PMID 22426209). Gated on total viable cells.



Immunoprecipitation - Anti-TIM-3/CD366 antibody [EPR20767] (ab210543)

TIM 3 was immunoprecipitated from 0.35 mg of Daudi (human Burkitt's lymphoma cell line) whole cell lysate with ab210543 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab210543 at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/1000 dilution.
Lane 1: Daudi whole cell lysate 10 µg (Input).
Lane 2: ab210543 IP in Daudi whole cell lysate.
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab210543 in Daudi whole cell lysate.

Exposure time: 10 seconds.

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

All lanes:
Immunoprecipitation - Anti-TIM-3/CD366 antibody [EPR20767] (ab210543)

Predicted band size: 33 kDa, 42 kDa, 44 kDa

Observed band size: 50 kDa

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