

Product datasheet

Recombinant Mouse TIM 3 protein (His tag) ab223108

1 Image

Description

Product name	Recombinant Mouse TIM 3 protein (His tag)	
Purity	> 95 % SDS-PAGE.	
Endotoxin level	< 1.000 Eu/µg	
Expression system	HEK 293 cells	
Accession	AAL65156.1	
Protein length	Protein fragment	
Animal free	No	
Nature	Recombinant	
Species	Mouse	
Sequence	RSLEDGYKVEVGKNAYLPCSYTLPTSGTLVPMCWGK GFCPWSQCTNELLR TDERNVTYQKSSRYQLKGDNLKGDVSLIKNVTLDDHG TYCCRIQFPGLM NDKKLELKLDIKAAKVTPAQTAHGDSTTASPRTLTER NGSETQTLVTLH NNNGTKISTWADEIKDSGETIR	
Predicted molecular weight	21 kDa including tags	
Amino acids	20 to 191	
Tags	His tag C-Terminus	

Specifications

Our [Abpromise guarantee](#) covers the use of **ab223108** in the following tested applications.
 The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Lyophilised

Preparation and Storage

Stability and Storage Shipped at 4°C. Store at 4°C (stable for up to 12 months). Upon reconstitution add a carrier protein (0.1% BSA). Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 7.40

Constituents: PBS, 5% Trehalose

Lyophilized from 0.22 µm filtered solution.

Reconstitution

It is recommended to reconstitute the lyophilized product in sterile deionized water to a final concentration of 1 mg/ml. Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Carrier protein (0.1% HSA or BSA) is strongly recommended for further dilution and long term storage.

General Info

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-alpha. In tumor-infiltrating DCs suppresses nucleic acid-mediated innate immune response by interaction with HMGB1 and interfering with nucleic acid-sensing and trafficking of nucleic 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.

Tissue specificity

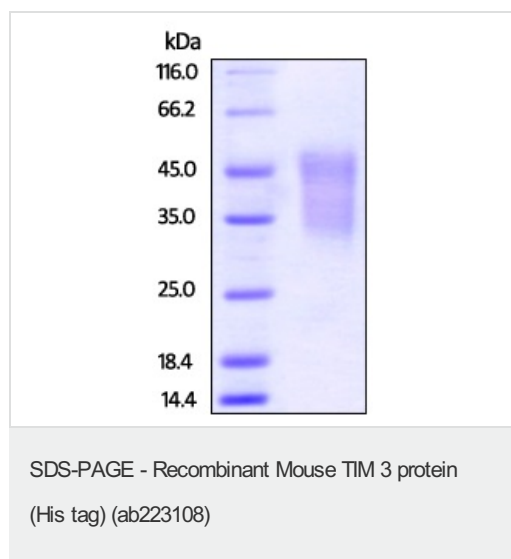
Expressed in T-helper type 1 (Th1) lymphocytes. Expressed on regulatory T (Treg) cells after TCR stimulation. Expressed in dendritic cells and natural killer (NK) cells. Expressed in epithelial tissues. Expression is increased on CD4+ and CD8+ T-cells in chronic hepatitis C virus (HCV) infection. In progressive HIV-1 infection, expression is up-regulated on HIV-1-specific CD8 T-cells.

Involvement in disease

May be involved in T-cell exhaustion associated with chronic viral infections such as with human immunodeficiency virus (HIV) and hepatitis C virus (HCV).

Sequence similarities	Belongs to the immunoglobulin superfamily. TIM family. Contains 1 Ig-like V-type (immunoglobulin-like) domain.
Post-translational modifications	O-glycosylated with core 1 or possibly core 8 glycans. Phosphorylated on tyrosine residues; modestly increased after TCR/CD28 stimulation. Can be phosphorylated in the cytoplasmatic domain by FYN (By similarity). Phosphorylation at Tyr-265 is increased by stimulation with ligand LGALS9.
Cellular localization	Membrane. Cell junction. Localizes to the immunological synapse between CD8+ T-cells and target cells.

Images



ab223108 analyzed by SDS-PAGE under reducing conditions and stained overnight with Coomassie Blue.

The reduced protein migrates as 33-47 kDa in SDS-PAGE due to glycosylation.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors