

Tim-1 recombinant antibody

Anti-Tim-1 [3B3]

CATALOG # AAA72045	REACTIVITY Mouse	APPLICATIONS Immunofluorescence, Immunohistochemistry, Western Blot, Flow Cytometry, Functional Assay
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PRODUCT SYNONYMS

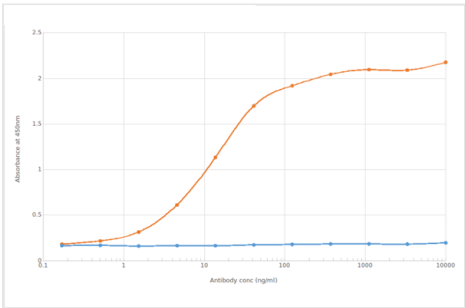
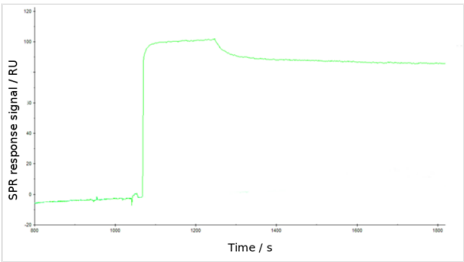
Tim-1; Monoclonal Recombinant Antibody; Anti-Tim-1 [3B3]; CD365; HAVcr-1; HAVCR1; Hepatitis A virus cellular receptor 1 homolog; Kidney injury molecule 1; KIM-1; T cell immunoglobulin and mucin domain-containing protein 1; T cell membrane protein 1; T-cell immunoglobulin and mucin domain containing 1; T-cell immunoglobulin mucin receptor 1; TIM-1; TIM1; TIMD-1; Tim-1 recombinant antibody

PRODUCT SPECIFICATIONS

Reactivity	Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG kappa
Clone Number	3B3
Specificity	This antibody is specific for murine TIM-1, a member of the T cell immunoglobulin domain, mucin-like domain (TIM) gene family. TIM-1 has been found on activated CD4+ T cells, mast cells, and a subset of B cells. TIM-1 is involved in renal injury, tissue homeostasis, and T cell costimulation, and promotes the differentiation of Th2 cells and the production of IL-4. TIM-1 can bind several ligands, including Hepatitis A virus, phosphatidylserine, TIM4, IgA, as well as itself.
Purity/Purification	Protein A Affinity Purified
Form/Format	PBS with 0.02% Proclin 300.
Concentration	1mg/ml (varies by lot)
Sequence Length	282
Applicable Applications for Tim-1 recombinant antibody	IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot), FCM/FACS (Flow Cytometry)
Antibody Type	Recombinant Antibody
Antibody Species	Rabbit
Original Species Name	Rat
Immunogen	This antibody was raised by immunising female Lewis strain rats (Harlan Sprague-Dawley) subcutaneously with mouse TIM-1-Ig in complete Freund's adjuvant (CFA), followed by multiple 'boosting' with mouse TIM-1-Ig in PBS.
Chimeric Use Statement	This chimeric rabbit antibody was made using the variable domain sequences of the original Rat IgG2a format, for improved compatibility with existing reagents, assays and techniques.

Clone Note	This antibody has been used in multiple FACS analyses, such as to determine if specific B cell subsets or if B cell-derived interleukin-10 contributes to tolerance (Lai et al, 2015), to test if blocking several checkpoint receptors boosts anti-tumor immunity in a low-dose, lympho-depleting whole body irradiation model (Jing et al, 2015), and to study the functions of kidney pericytes in vascular stability (Schrimpf et al, 2012). This antibody has also been used in Western Blot and immunohistochemistry to investigate the distinct role of matrix metalloproteinase-3 in TIM-1 shedding by kidney proximal tubular epithelial cells (Lim et al. 2012), and to demonstrate how Bbeta(15-42) attenuates the effect of ischemia-reperfusion injury in renal transplantation (Sörensen et al, 2011). In addition, in vivo applications of this agonistic anti-TIM-1 antibody (clone 3B3) has been shown, for instance, to heighten T cell activation and prevent the development of respiratory tract tolerance in a Th2-driven model of asthma (Umetsu et al, 2005), to increase the frequency of antigen-specific T cells, the production of the proinflammatory cytokines IFN-gamma and IL-17, and thus the severity of experimental autoimmune encephalomyelitis (Sheng et al, 2007), as well as to deprogram Tregs and prevent transplant tolerance in mice (Degauque et al, 2008).
Buffer Composition	PBS only with 0.02% Proclin 300.
Preparation and Storage	Store at 4 degree C for up to 3 months. For longer storage, aliquot and store at -20 degree C.

IMAGES



Application Data

Surface plasmon resonance (SPR) sensorgram anti-TIM-1 3B3 binding to TIM-1 Fc-fusion protein. Binding of mouse TIM-1 Fc-fusion protein (Pr00227-1.9) to immobilised the rabbit IgG chimeric version of 3B3 (AAA72045). Pr00227-1.9 was injected and allowed to associate with AAA72045 between 1080s and 1250s, before a dissociation phase between 1250s and 1800s. Pr00227-1.9 showed rapid binding to AAA72045 and following ligand removal remained strongly bound. This suggests that AAA72045 has a very high affinity for Pr00227-1.9.

ELISA

ELISA of anti-TIM-1 antibody on TIM-1-Fc fusion protein. Binding curves of the rabbit chimeric version of the anti-TIM-1 antibody 3B3 (AAA72045; red line) and isotype control to an ELISA plate coated with mouse TIM-1-Fc fusion protein (Pr00227-1.9) at a concentration of 5 ug/ml. A 3-fold serial dilution from 10000 to 0.17 ng/ml was performed using AAA72045. For signal detection, a 1:4000 dilution of anti-rabbit IgG1 HRP (BioRad) antibody was used.

ADDITIONAL INFORMATION

Related Product Information for Tim-1 recombinant antibody	Recombinant monoclonal antibody to Tim-1. Manufactured using the recombinant platform with variable regions (i.e. specificity) from the hybridoma 3B3.
Product Categories/Family for Tim-1 recombinant antibody	Immunology; CD Markers; Cell Signalling; T Cells
References	Umetsu Sarah et al. TIM-1 induces T cell activation and inhibits the development of peripheral tolerance. Nat Immunol. 2005 May;6(5):447-54. PMID:15793575 Original Published Journal: Nat Immunol. 2005 May;6(5):447-54. Publication Note: Describe the original generation of this antibody and its use in FACS analysis and in a TCR-transgenic DO11.10 mouse model to demonstrate that TIM-1 induces T cell activation and inhibits the development of peripheral tolerance.

NCBI AND UNIPROT INFORMATION

NCBI GI #	262231823
NCBI Accession #	NP_001160103.1
NCBI GenBank Nucleotide #	NP_001160103.1
UniProt Accession #	Q5QNS5
NCBI Official Full Name	hepatitis A virus cellular receptor 1 homolog isoform b
UniProt Protein Name	Hepatitis A virus cellular receptor 1 homolog

UniProt Gene Name	Havcr1
UniProt Synonym Gene Names	Kim1; Tim1; Timd1; HAVcr-1; KIM-1; TIMD-1; TIM-1
UniProt Entry Name	HAVR1_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/tim-1-recombinant-antibody-clone-3b3-immunofluorescence-immunohistochemistry-western-blot-flow-cytometry-elisa/72045>