

TIM-1 Antibody

Catalog # ASC10421

Specification

TIM-1 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Calculated MW Application Notes WB, IHC-P, IF, E <u>Q96D42</u> <u>NP_036338</u>, <u>153085427</u> Human, Mouse Rabbit Polyclonal IgG 40 kDa KDa TIM-1 antibody can be used for the detection of TIM-1 by Western blot at 1 - 2 μg/mL. Antibody can also be used for immunohistochemistry starting at 10 μg/mL. For immunofluorescence start at 20 μg/mL.

TIM-1 Antibody - Additional Information

Gene ID 26762 Other Names TIM-1 Antibody: TIM, KIM1, TIM1, HAVCR, KIM-1, TIM-1, TIMD1, TIMD-1, HAVCR-1, Hepatitis A virus cellular receptor 1, Kidney injury molecule 1, HAVcr-1, hepatitis A virus cellular receptor 1

Target/Specificity HAVCR1;

Reconstitution & Storage

Antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures.

Precautions

TIM-1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TIM-1 Antibody - Protein Information

Name HAVCR1

Synonyms KIM1, TIM1, TIMD1

Function

Phosphatidylserine receptor that plays an important functional role in regulatory B-cells 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:http://www.uniprot.org/citations/24703780



target="_blank">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). May play a role in kidney injury and repair (PubMed:17471468" target="_blank">17471468).

Cellular Location

Cell membrane; Single-pass type I membrane protein

Tissue Location

Widely expressed, with highest levels in kidney and testis. Expressed by activated CD4+ T-cells during the development of helper T-cells responses.

TIM-1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

TIM-1 Antibody - Images



Western blot analysis of TIM-1 in human uterus tissue lysate with TIM-1 antibody at (A) 1 and (B) 2 μ g/mL.





Immunohistochemistry of TIM-1 in human uterus tissue with TIM-1 antibody at 10 µg/mL.



Immunofluorescence of TIM-1 in Human Uterus cells with TIM-1 antibody at 20 $\mu\text{g/mL}.$

TIM-1 Antibody - Background

TIM-1 Antibody: The human form of TIM-1 was initially discovered as a membrane glycoprotein through which the hepatitis A virus can gain entry into a cell. It was also identified as kidney injury molecule 1 (Kim-1), a predicted adhesion molecule that is upregulated on the surfaces of kidney epithelia. It is also expressed on T helper 2 (Th2) cells of the immune system, and following the binding of its natural ligand TIM-4, stimulates T cell expansion and cytokine production in response to viral challenge. It has been suggested that hyperactivation of TIM-1 leads to an increased level of Th2 responsiveness and asthma susceptibility, and antibodies to TIM-1 may therefore be a novel approach to treating asthma.

TIM-1 Antibody - References

Feigelstock D, Thompson P, Mattoo P, et al. The human homolog of HAVcr-1 codes for a hepatitis A virus cellular receptor. J. Virol. 1998; 72:6621-8.

Ichimura T, Bonventre JV, Bailly V, et al. Kidney injury molecule-1 (KIM-1), a putative epithelial cell adhesion molecule containing a novel immunoglobulin domain, is up-regulated in renal cells after injury. J. Biol. Chem.1998; 273:4135-42.

Meyers JH, Sabatos CA, Chakravarti S, et al. The TIM family regulates autoimmune and allergic diseases. Trends Mol. Med. 2005; 11:362-9.

Meyers JH, Chakravarti S, Schlesinger D, et al. TIM-4 is the ligand for TIM-1, and the TIM-1-TIM4 interaction regulates T cell proliferation. Nat. Immunol. 2005; 6:455-64.