

TIM-1 Antibody

TIM-1 (IN): T cell immunoglobulin and mucin domain containing protein 1, Hepatitis A virus cellular receptor 1, HAVcr-1, Kim-1

CATALOG NO.: 3811

BACKGROUND:

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 (1). It was also identified as kidney injury molecule 1 (Kim-1), a predicted adhesion molecule that is upregulated on the surfaces of kidney epithelia (2). 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 (3,4). 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 (5).

SOURCE:

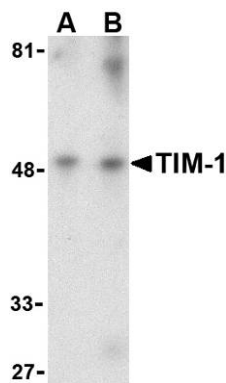
Rabbit polyclonal TIM-1 antibody was raised against a 16 amino acid peptide from near the center of human TIM-1 (Genbank accession No. NP_036338).

APPLICATION:

TIM-1 antibody can be used for the detection of TIM-1 by Western blot at 1 – 2 µg/ml. (Optimal dilution should be determined by user.) Human uterus tissue lysate can be used as positive control. TIM-1 antibody is human, mouse, and rat reactive. **This product is for research use only.**

STORAGE:

TIM-1 antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



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

RELATED PRODUCTS:

Blocking peptide, Catalog No. **3811P**.
Human Uterus tissue lysate, Catalog No. **1317**.
TIM-1 Antibody (NT), Catalog No. **3809**.
TIM-4 Antibody (CT), Catalog No. **3813**.
TIM-4 Antibody (IN), Catalog No. **3815**.

REFERENCES:

1. 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.
 2. 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.
 3. Meyers JH, Sabatos CA, Chakravarti S, et al. The TIM family regulates autoimmune and allergic diseases. *Trends Mol. Med.* 2005; 11:362-9.
 4. 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.
 5. Encinas JA, Janssen EM, Weiner DB, et al. Anti-T-cell Ig and mucin domain-containing protein 1 antibody decreases Th2 airway inflammation in a mouse model of asthma. *J. Allergy Clin. Immunol.* 2005; 116:1343-9.
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