

Anti-TIM 1/HAVCR1 Antibody

Catalog Number: PA1632

About Havcr1

KIM1 (KIDNEY INJURY MOLECULE 1), also known as HAVCR1, HAVCR or TIM1, is a protein that in humans is encoded by the KIM1 gene. The KIM1 gene is mapped to 5q33.3. Biochemical, mutational, and cell adhesion analyses confirm that Tim1 is capable of homophilic Tim-Tim interactions. The features identified in murine KIM1 is conserved in human KIM1. The KIM1 protein is indeed a receptor for the virus through the infection of canine osteogenic sarcoma cells expressing HAVCR1 with HAV. Using a monoclonal antibody to mouse Tim1, Tim1 is expressed after activation of naive T cells and on T cells differentiated in Th2-polarizing conditions. Ectopic expression of KIM1 during mouse T-cell differentiation leads to production of the Th2-type cytokine IL4, but not the Th1-type cytokine IFN γ . KIM1-expressing epithelial cells internalized apoptotic bodies, and Kim1 is directly responsible for phagocytosis in cultured primary rat tubule epithelial cells and in porcine and canine epithelial cell lines.

Overview

Product Name	Anti-TIM 1/HAVCR1 Antibody
Reactive Species	Rat
Description	Boster Bio Anti-TIM 1 /HAVCR1 Antibody catalog # PA1632. Tested in IHC, WB applications. This antibody reacts with Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	O54947

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of rat TIM 1.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and IHC(F).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Rat, -</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Rat, By Heat</p> <p>Western blot, 0.1-0.5ug/ml, Rat</p>

Anti-TIM 1/HAVCR1 Antibody (PA1632) Images



Figure 1. Western blot analysis of KIM1 using anti-KIM1 antibody (PA1632).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: rat kidney tissue lysates,

Lane 2: rat testis tissue lysates,

Lane 3: rat heart tissue lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes.

Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-KIM1 antigen affinity purified polyclonal antibody (Catalog # PA1632) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for KIM1 at approximately 50KD. The expected band size for KIM1 is at 39KD.

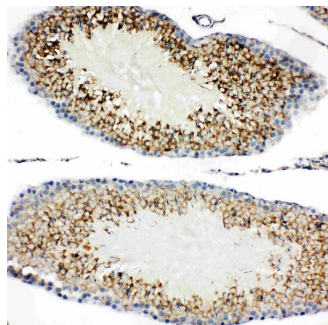


Figure 2. IHC analysis of KIM1 using anti-KIM1 antibody (PA1632).

KIM1 was detected in paraffin-embedded section of rat testis tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-KIM1 Antibody (PA1632) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

3 Publications Citing This Product

1. PubMed ID: 10.3892/etm.2018.6533, Resveratrol ameliorates sepsis-induced acute kidney injury in a pediatric rat model via Nrf2 signaling pathway

2. PubMed ID: 33888767, Sánchez-Navarro A,Pérez-Villalva R,Murillo-de-Ozores AR,Martínez-Rojas MÁ,Rodríguez-Aguilera JR,González N,Castañeda-Bueno M,Gamba G,Recillas-Targa F,Bobadilla NA.Vegfa promoter gene hypermethylation at HIF1alpha binding site is an early contributor to CKD progression after renal ischemia.Sci Rep.2021 Apr 22;11(1):8769.doi:10.1038/s41598-021-88000-5.PMID:33888767;PMCID:PMC8062449.

3. PubMed ID: 30214546, Resveratrol ameliorates sepsis-induced acute kidney injury in a pediatric rat model via Nrf2 signaling pathway

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