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Anti-TIM 1/HAVCR1 Antibody Picoband®

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 Ifng. 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 Picoband®
Reactive Species	Rat
Description	Boster Bio Anti-TIM 1/HAVCR1 Antibody catalog # PA1632. Tested in IHC, WB applications. This antibody reacts with Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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.
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

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Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Rat

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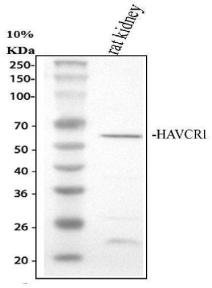
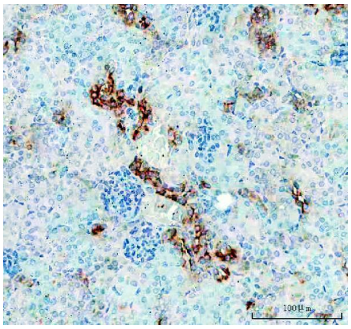
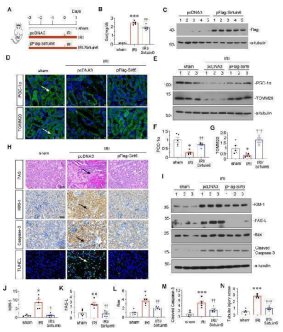
Anti-TIM 1/HAVCR1 Antibody Picoband® (PA1632) Images



Western blot analysis of HAVCR1 using anti-HAVCR1 antibody (PA1632). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat kidney tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-HAVCR1 antigen affinity purified polyclonal antibody (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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for HAVCR1 at approximately 50 kDa. The expected band size for HAVCR1 is at 34 kDa.



IHC analysis of HAVCR1 using anti-HAVCR1 antibody (PA1632). HAVCR1 was detected in a paraffin-embedded section of rat kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-HAVCR1 Antibody (PA1632) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



The ectopic expression of Sirtuin 6 relieves renal injury and mitochondrial dysfunction upon IRI. A Experimental design. Green arrow showed the injection of pcDNA plasmid or pFlag-Sirtuin 6 overexpression plasmid. Male mice were subjected to IRI or sham respectively, and euthanized 24 h after IRI. B Scr levels in three groups, as indicated. Scr was expressed as milligrams per deciliter. *** P

The ectopic knockdown of AR ameliorates renal injury and mitochondrial dysfunction upon IRI. A Experimental design. Green arrow showed the injection of control-shRNA (pLVX-shRNA) or AR-shRNA (pLVX-shAR) plasmid. Male mice were subjected to IRI or sham respectively, and euthanized 24 h after IRI. B Scr levels in three groups, as indicated. Scr was expressed as milligrams per deciliter. ** P

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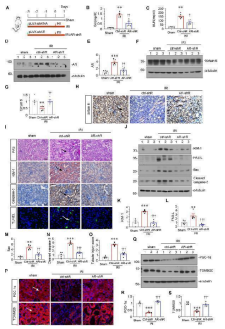
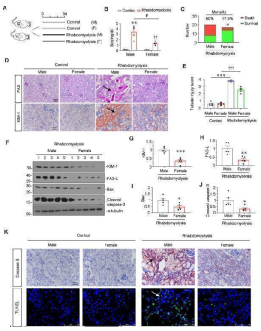
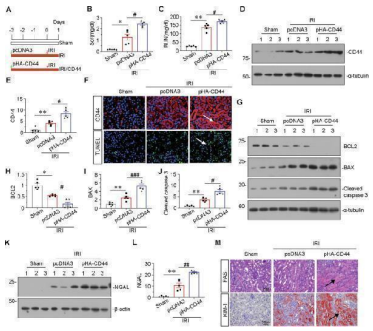
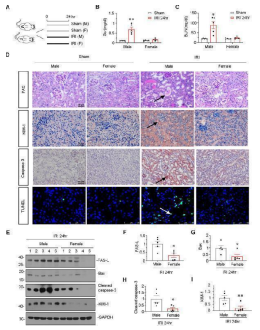




Male mice were more susceptive to rhabdomyolysis-induced AKI and tubular apoptosis in kidney. A Experimental design. Female and male mice were intramuscularly injected with 50% glycerol at the dose of 7.5 ml/kg or normal saline respectively. Mice were euthanized 3 days after intramuscular injection. B Scr levels in four groups, as indicated. Scr was expressed as milligrams per deciliter. ** P



Ectopic CD44 aggravates tubular cell apoptosis and kidney injury in IRI mice. A Experimental design: Green arrow indicated the injection of pcDNA3 plasmid or p-HA-CD44 overexpression plasmid. Mice were subjected to IRI surgery or sham surgery, respectively, as shown in the red arrow. Mice are euthanized 24 h after surgery. B Scr levels in three groups, as indicated. Scr was expressed as milligrams per deciliter. * P



Male mice were more susceptive to IRI and tubular apoptosis in kidney. A Experimental design. Female and male mice were subjected to IRI or sham respectively, and euthanized 24 h after IRI. B Scr levels in four groups, as indicated. Scr was expressed as milligrams per deciliter. ** P

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.

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3. PubMed ID: 30214546, Resveratrol ameliorates sepsis%u2011induced acute kidney injury in a pediatric rat model via Nrf2 signaling pathway

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