

## Anti-TREM1 Antibody Picoband®

Catalog Number: PA1586

### About Trem1

Trem1, Triggering receptor expressed on myeloid cells-1, is encoded by Trem1 gene. The expression of Trem1 is in monocytes and neutrophils but not in lymphocytes, dendritic cells, or other cell types. Trem1 is a 30-kD glycoprotein that is reduced to 26 kD by deglycosylation, in agreement with the predicted molecular mass. The Trem1 gene which contains 4 exons maps to chromosome 6p21.1, within a TREM gene cluster and the mouse Trem1 gene maps to chromosome 17 in a region that shows homology of synteny to human chromosome 6. The expression of Trem1 is upregulated by stimulation with lipopolysaccharide (LPS), gram-negative bacteria, and fungi. Cross-linking of Trem1 on neutrophils induces interleukin-8 (IL8) and myeloperoxidase secretion, while cross-linking on monocytes induces not only secretion of IL8 but also of monocyte chemoattractant protein-1 (MCP1, or SCYA2) and tumor necrosis factor (TNF); MCP1 and TNF secretion could be further upregulated by LPS-mediated priming. Trem1 engagement also induces upregulation of adhesion molecules (e.g., ITGB1) and costimulatory molecules (e.g., CD40). Trem1 is associated with DAP12 (TYROBP), a molecule frequently associated with activating receptors.

### Overview

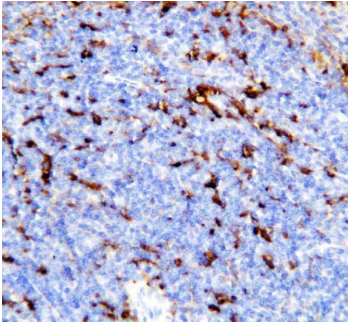
Product Name	Anti-TREM1 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-TREM1 Antibody catalog # PA1586. Tested in IHC, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, 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 antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Thimerosal, 0.05mg NaN <sub>3</sub> . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	Q9JKE2

### Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle of mouse TREM1.
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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).
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	Western blot, 0.1-0.5ug/ml, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse

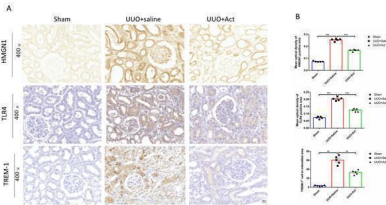
## Anti-TREM1 Antibody Picoband® (PA1586) Images



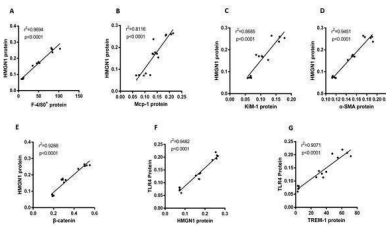
Anti-TREM1 antibody, PA1586, IHC(P)IHC(P): Mouse Spleen Tissue



Anti-TREM1 antibody, PA1586, Western blotting Lane 1: Recombinant Mouse TREM1 Protein 1ng

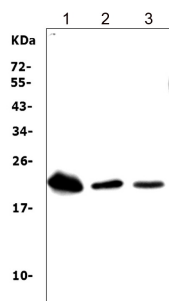


HMG1, TLR4, and TREM-1 protein levels in the kidney of different experimental groups. (A) Immunohistochemical stain of HMG1, TLR4 and TREM-1 in the kidney tissue of UUO rats ( n = 5). Original magnification = 400 x. Scale bars. 50 um. (B) Quantification of the levels of HMG1, TLR4 and TREM-1 proteins. all values are presented as mean  $\pm$  SEM. \*\* p



Correlation analysis of HMG1 protein with the key proteins involved in UUO-induced renal inflammation and fibrosis. (A) HMG1 protein had a positive relation with F4/80+ cells. (B) HMG1 protein was positively associated with Mcp-1 protein. (C) HMG1 protein was positively related to KIM-1 protein. (D) HMG1 protein was positively associated with alpha -SMA protein. (E) HMG1 protein was positively associated with beta -catenin protein. (F) TLR4 protein and HMG1 protein had a positive relation. (G) TLR4 protein was positively associated with TREM-1 protein. Download full-size image DOI:Index in PubMed under a CC BY license. PMID: 36691481

Western blot analysis of Trem1 using anti-Trem1 antibody (PA1586). 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 liver tissue lysates, Lane 2: mouse liver tissue lysates, Lane 3: mouse spleen 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-Trem1 antigen affinity purified polyclonal antibody (Catalog # PA1586) 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 Trem1 at approximately 22-26KD. The expected band size for Trem1 is at 26KD.

## 1 Publications Citing This Product

1. PubMed ID: 26648110, Identification of Genes Associated with Smad3-dependent Renal Injury by RNA-seq-based Transcriptome Analysis

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Anti-TREM1 Antibody

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