

Anti-TREM1 Picoband Antibody

Catalog # ABO12976

Product Information

Application	WB
Primary Accession	TREM1: Q9NP99
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for TREM1 detection. Tested with WB in Human.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Application Details	Western blot, 0.1-0.5 µg/ml
Subcellular Localization	Isoform 1: Cell membrane ; Single-pass type I membrane protein .
Tissue Specificity	Highly expressed in adult liver, lung and spleen than in corresponding fetal tissue. Also expressed in the lymph node, placenta, spinal cord and heart tissues. Expression is more elevated in peripheral blood leukocytes than in the bone marrow and in normal cells than malignant cells. Expressed at low levels in the early development of the hematopoietic system and in the promonocytic stage and at high levels in mature monocytes. Strongly expressed in acute inflammatory lesions caused by bacteria and fungi. Isoform 2 was detected in the lung, liver and mature monocytes.
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human TREM1 recombinant protein (Position: A21-R200).
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Protein Information

Background

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 chemotactic 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.

Images



Figure 1. Western blot analysis of TREM1 using anti-TREM1 antibody (ABO12976). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: recombinant human TREM1 protein 1ng. 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 # ABO12976) 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 with Tanon 5200 system. A specific band was detected for TREM1 at approximately 26KD. The expected band size for TREM1 is at 26KD.

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