

TREML4 (P-14): sc-169673

BACKGROUND

Triggering receptor expressed on myeloid cells (TREM) family of proteins are cell surface receptors that may be involved in the innate and adaptive immune response. TREML1 may play a significant role in maintaining vascular homeostasis, coagulation, and inflammation at sites of injury through its location in platelets. Defects in the gene encoding TREML1 may be the cause of the Gray platelet syndrome, a rare inherited congenital bleeding disorder caused by a reduction or absence of the platelet α -granules in blood platelets. TREML2 is expressed in cultured B cells, as well as in T cell leukemia and monocyte leukemia, and acts as a counterreceptor for B7-H3. TREML2 interaction with B7-H3 on T-cells enhances T-cell activation. TREML4 (triggering receptor expressed on myeloid cells-like 4), also known as TLT4, is a 200 amino acid secreted protein containing one Ig-like V-type (immunoglobulin-like) domain. Predominantly expressed in spleen, TREML4 is suggested to be involved in recognizing dead cells by different types of phagocytes in spleen.

REFERENCES

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3. Gibot, S. 2005. Clinical review: role of triggering receptor expressed on myeloid cells-1 during sepsis. *Crit. Care* 9: 485-489.
4. Lu, Y.T., et al. 2006. Preparation and characterization of monoclonal antibody against protein TREM-like transcript-1 (TLT-1). *Hybridoma* 25: 20-26.
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7. Ford, J.W., et al. 2009. TREM and TREM-like receptors in inflammation and disease. *Curr. Opin. Immunol.* 21: 38-46.
8. Hemmi, H., et al. 2009. A new triggering receptor expressed on myeloid cells (Trem) family member, Trem-like 4, binds to dead cells and is a DNAX activation protein 12-linked marker for subsets of mouse macrophages and dendritic cells. *J. Immunol.* 182: 1278-1286.
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CHROMOSOMAL LOCATION

Genetic locus: TREML4 (human) mapping to 6p21.1.

SOURCE

TREML4 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TREML4 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-169673 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TREML4 (P-14) is recommended for detection of TREML4 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other TREML family members.

Suitable for use as control antibody for TREML4 siRNA (h): sc-95452, TREML4 shRNA Plasmid (h): sc-95452-SH and TREML4 shRNA (h) Lentiviral Particles: sc-95452-V.

Molecular Weight of TREML4: 22 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.