

TREM-1 (E-19): sc-19312

BACKGROUND

TREM-1 (triggering receptor expressed on myeloid cells-1) is expressed in monocytes and neutrophils but not in lymphocytes, dendritic cells, or other cell types. TREM-1 is a 30 kDa glycoprotein that is reduced to 26 kDa by deglycosylation, in agreement with the predicted molecular mass. TREM-1 is an activating receptor of the Ig superfamily expressed on human myeloid cells, selectively expressed on blood neutrophils and a subset of monocytes, and is up regulated by bacterial LPS. Immunoblot analysis shows that TREM-1 is associated with DAP12, a molecule frequently associated with activating receptors. TREM-1 and the myeloid DAP12-associating lectin (MDL-1) are two recently identified receptors which associate non-covalently with DAP12 to form receptor complexes involved in monocytic activation and inflammatory response. The gene which encodes TREM-1 maps to human chromosome 6.

REFERENCES

1. Bouchon, A., Dietrich, J., and Colonna, M. 2000. Cutting edge: inflammatory responses can be triggered by TREM-1, a novel receptor expressed on neutrophils and monocytes. *J. Immunol.* 164: 4991-4995.
2. Bouchon, A., Facchetti, F., Weigand, M.A., and Colonna, M. 2001. TREM-1 amplifies inflammation and is a crucial mediator of septic shock. *Nature* 410: 1103-1107.
3. Gingras, M.C., Lapillonne, H., and Margolin, J.F. 2002. TREM-1, MDL-1, and DAP12 expression is associated with a mature stage of myeloid development. *Mol. Immunol.* 38: 817-824.
4. Chung, D.H., Seaman, W.E., and Daws, M.R. 2002. Characterization of TREM-3, an activating receptor on mouse macrophages: definition of a family of single Ig domain receptors on mouse chromosome 17. *Eur. J. Immunol.* 32: 59-66.

CHROMOSOMAL LOCATION

Genetic locus: TREM1 (human) mapping to 6p21.1; Trem1 (mouse) mapping to 17 C.

SOURCE

TREM-1 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TREM-1 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-19312 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

TREM-1 (E-19) is recommended for detection of TREM-1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 µg per 100–500 µg of total protein (1 ml of cell lysate)], 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).

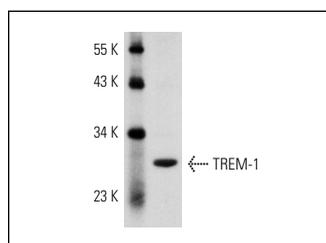
Molecular Weight of TREM-1: 30/26 kDa.

Positive Controls: J774.A1 cell lysate: sc-3802 or rat lung extract: sc-2396.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/ 2.0 ml). 3) 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.

DATA



TREM-1 (E-19): sc-19312. Western blot analysis of TREM-1 expression in rat lung extract.

PROTOCOLS

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