SANTA CRUZ BIOTECHNOLOGY, INC.

TREML2 (A-5): sc-390167

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

TREML2 (triggering receptor expressed on myeloid cells-like 2), also known as C6orf76 or TLT2, is a 321 amino acid single-pass type I membrane protein that contains one Ig-like V-type domain. Expressed in cultured B cells, as well as in T cell leukemia and monocyte leukemia, TREML2 functions as a cell surface receptor that is thought to play a role in the innate and adaptive immune responses. The gene encoding TREML2 maps to a region on human chromosome 6 that is shared by proteins which contain Ig variavle (IgV) domains. Chromosome 6 contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

1. Allcock, R.J., et al. 2003. The human TREM gene cluster at 6p21.1 encodes both activating and inhibitory single IgV domain receptors and includes NKp44. Eur. J. Immunol. 33: 567-577.
2. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609715. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. King, R.G., et al. 2006. Trem-like transcript 2 is expressed on cells of the myeloid/granuloid and B lymphoid lineage and is up-regulated in response to inflammation. J. Immunol. 176: 6012-6021.
4. Wiersinga, W.J., et al. 2007. Expression profile and function of triggering receptor expressed on myeloid cells-1 during melioidosis. J. Infect. Dis. 196: 1707-1716.
5. Hashiguchi, M., et al. 2008. Triggering receptor expressed on myeloid cell-like transcript 2 (TLT-2) is a counter-receptor for B7-H3 and enhances T cell responses. Proc. Natl. Acad. Sci. USA 105: 10495-10500.
6. Molloy, E.J. 2009. Triggering receptor expressed on myeloid cells (TREM) family and the application of its antagonists. Recent Pat. Antiinfect. Drug Discov. 4: 51-56.

CHROMOSOMAL LOCATION

Genetic locus: Treml2 (mouse) mapping to 17 C.

SOURCE

TREML2 (A-5) is a mouse monoclonal antibody raised against a peptide mapping within an extracellular domain of TREML2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

TREML2 (A-5) is recommended for detection of TREML2 of mouse and rat origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for TREML2 siRNA (m): sc-154630, TREML2 shRNA Plasmid (m): sc-154630-SH and TREML2 shRNA (m) Lentiviral Particles: sc-154630-V.

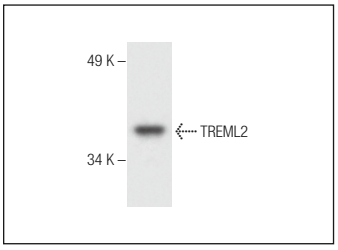
Molecular Weight of TREML2: 35 kDa.

Positive Controls: MM-142 cell lysate: sc-2246 or PMA treated WEHI-231 whole cell lysate.

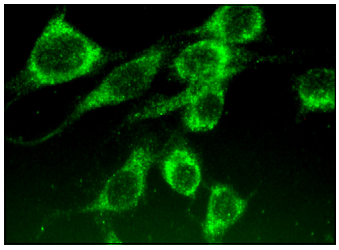
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TREML2 (A-5): sc-390167. Western blot analysis of TREML2 expression in PMA treated WEHI-231 whole cell lysate.



TREML2 (A-5): sc-390167. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

RESEARCH USE

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

PROTOCOLS

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