

TREML2 (G-12): sc-390343

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 variable (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

- 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.
- 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/>

CHROMOSOMAL LOCATION

Genetic locus: Trem2 (mouse) mapping to 17 C.

SOURCE

TREML2 (G-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 248-259 within an extracellular domain of TREML2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TREML2 (G-12) is available conjugated to agarose (sc-390343 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390343 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390343 PE), fluorescein (sc-390343 FITC), Alexa Fluor® 488 (sc-390343 AF488), Alexa Fluor® 546 (sc-390343 AF546), Alexa Fluor® 594 (sc-390343 AF594) or Alexa Fluor® 647 (sc-390343 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390343 AF680) or Alexa Fluor® 790 (sc-390343 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390343 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

APPLICATIONS

TREML2 (G-12) 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), immunohistochemistry (including paraffin-embedded sections) (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.

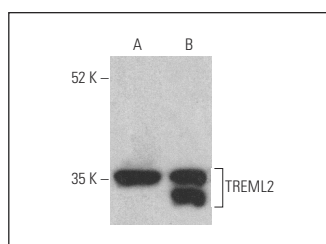
Molecular Weight of TREML2: 35 kDa.

Positive Controls: WEHI-231 whole cell lysate: sc-2213 or Jurkat whole cell lysate: sc-2204.

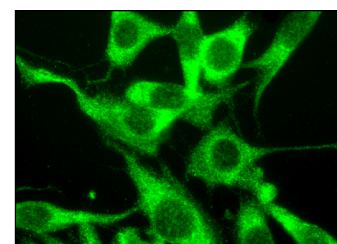
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



TREML2 (G-12) HRP: sc-390343 HRP. Direct western blot analysis of TREML2 expression in WEHI-231 (A) and Jurkat (B) whole cell lysates.



TREML2 (G-12): sc-390343. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Wang, S.Y., et al. 2023. The Alzheimer's disease-associated gene TREML2 modulates inflammation by regulating microglia polarization and NLRP3 inflammasome activation. *Neural Regen. Res.* 18: 434-438.

RESEARCH USE

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