

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

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/>

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).

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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.

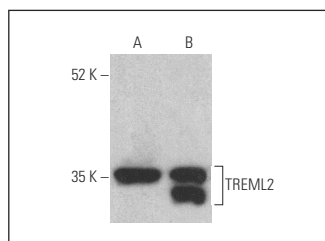
Molecular Weight of TREML2: 35 kDa.

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

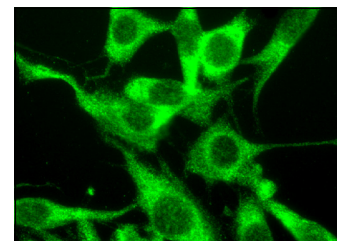
RECOMMENDED SUPPORT REAGENTS

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

1. 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.