

lymphotactin (E-12): sc-514972

BACKGROUND

Lymphotactin is a chemokine-like molecule produced selectively, if not exclusively, by activated CD8⁺ T cells. Lymphotactin is a C-type member of the chemokine superfamily, but retains only the second and fourth of the four cysteine residues conserved in other chemokines. In normal tissues, lymphotactin is expressed at high levels in spleen, thymus, small intestine, and peripheral blood leukocytes, as well as at low levels in lung, prostate, and ovary. Lymphotactin is chemotactic for CD4⁺ and CD8⁺ T cells but not for monocytes, and induces a rise in intracellular calcium in peripheral blood lymphocytes. The specific receptor for lymphotactin is XCR1, a member of the G protein-coupled receptor family.

REFERENCES

1. Muller, S., et al. 1995. Cloning of ATAC, an activation-induced, chemokine-related molecule exclusively expressed in CD8⁺ T lymphocytes. *Eur. J. Immunol.* 25: 1744-1748.
2. Yoshida, T., et al. 1996. Structure and expression of two highly related genes encoding SCM-1/human lymphotactin. *FEBS Lett.* 395: 82-88.
3. Yoshida, T., et al. 1998. Identification of single C motif-1/lymphotactin receptor XCR1. *J. Biol. Chem.* 273: 16551-16554.
4. Yoshida, T., et al. 1999. Molecular cloning of mXCR1, the murine SCM-1/lymphotactin receptor. *FEBS Lett.* 458: 37-40.
5. LocusLink Report (LocusID: 600250). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: XCL1 (human) mapping to 1q24.2; Xcl1 (mouse) mapping to 1 H2.2.

SOURCE

lymphotactin (E-12) is a mouse monoclonal antibody raised against amino acids 1-114 representing full length lymphotactin of human 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.

lymphotactin (E-12) is available conjugated to agarose (sc-514972 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514972 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514972 PE), fluorescein (sc-514972 FITC), Alexa Fluor® 488 (sc-514972 AF488), Alexa Fluor® 546 (sc-514972 AF546), Alexa Fluor® 594 (sc-514972 AF594) or Alexa Fluor® 647 (sc-514972 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514972 AF680) or Alexa Fluor® 790 (sc-514972 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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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

lymphotactin (E-12) is recommended for detection of lymphotactin of mouse, rat and human 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 lymphotactin siRNA (h): sc-39357, lymphotactin siRNA (m): sc-39358, lymphotactin shRNA Plasmid (h): sc-39357-SH, lymphotactin shRNA Plasmid (m): sc-39358-SH, lymphotactin shRNA (h) Lentiviral Particles: sc-39357-V and lymphotactin shRNA (m) Lentiviral Particles: sc-39358-V.

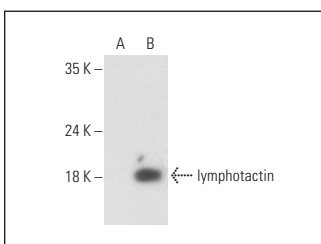
Molecular Weight of lymphotactin: 15 kDa.

Positive Controls: rat heart extract: sc-2393 or human lymphotactin transfected HEK293T whole cell lysate

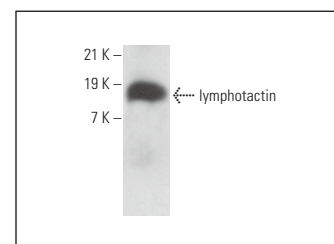
RECOMMENDED SUPPORT REAGENTS

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



lymphotactin (E-12): sc-514972. Western blot analysis of lymphotactin expression in non-transfected (A) and human lymphotactin transfected (B) HEK293T whole cell lysates.



lymphotactin (E-12): sc-514972. Western blot analysis of lymphotactin expression in rat heart tissue extract.

SELECT PRODUCT CITATION

1. Zhang, Z., et al. 2023. Lymphocyte-related immunomodulatory therapy with siponimod (BAF-312) improves outcomes in mice with acute intracerebral hemorrhage. *Aging Dis.* 14: 966-991.

RESEARCH USE

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