# lymphotactin (M-20): sc-19046



The Power to Question

#### **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 2nd and 4th 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. The gene which encodes lymphotactin maps to human chromosome 1q23.

## **REFERENCES**

- Muller, S., et al. 1995. Cloning of ATAC, an activation-induced, chemokinerelated 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 Letts. 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 Letts. 458: 37-40.
- LocusLink Report (LocusID: 600250). http://www.ncbi.nlm.nih.gov/ LocusLink/
- Dorner, B.G., et al. 2002. MIP-1alpha, MIP-1beta, RANTES, and ATAC/lymphotactin function together with IFN-gamma as type 1 cytokines. Proc. Natl. Acad. Sci. USA 99: 6181-6186.
- Huang, H., et al. 2002. Synergistic enhancement of antitumor immunity with adoptively transferred tumor-specific CD4+ and CD8+ T cells and intratumoral lymphotactin transgene expression. Cancer Res. 62: 2043-2051.
- 8. Kuloglu, E.S., et al. 2002. Structural rearrangement of human lymphotactin, a C chemokine, under physiological solution conditions. J. Biol. Chem. 277: 17863-17870.
- 9. Palena, C., et al. 2003. Enhanced expression of lymphotactin by CD8<sup>+</sup> T cells is selectively induced by enhancer agonist peptides of tumor-associated antigens. Cytokine 24: 128-142.

## **SOURCE**

lymphotactin (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of lymphotactin of mouse origin.

# **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-19046 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

lymphotactin (M-20) is recommended for detection of lymphotactin of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 lymphotactin: 15 kDa.

# **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) 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.

#### **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.

## **PROTOCOLS**

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

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