Lymphotactin, human recombinant (rHuXCL1)

Catalog No: 94854
Lot No: XXXXX
Source: *E. coli*
Synonyms: XCL1, Cytokine SCM-1, ATAC, Lymphotaxin, SCM-1-alpha, Small inducible cytokine C1, XC chemokine ligand 1, LTN, LPTN, SCM1, SCM-1, SCYC1, SCM-1a

Background

Chemokine (C motif) ligand (XCL1) is a small cytokine belonging to the XC chemokine family that is also known as lymphotactin. It is found in high levels in spleen, thymus, intestine and peripheral blood leukocytes, and at lower levels in lung, prostate gland and ovary. Cellular sources for XCL1 include activated thymic and peripheral blood CD8+ T cells. This chemokine attracts T cells. In humans, XCL1 is closely related to another chemokine called XCL2, whose geneis found at the same locus on chromosome 1. XCL1 induces it chemotactic function by binding to a chemokine receptor called XCR1.

Description

Lymphotactin human recombinant produced in *E. coli* is a single,non-glycosylated, polypeptide chain containing 92 amino acids and having a molecular mass of 10007 Dalton. Lymphotactin is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

XCL1 was lyophilized from a concentrated (1 mg/ml) solution in water containing no additives.

Solubility

It is recommended to reconstitute the lyophilized Lymphotactin in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Lymphotactin, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution XCL1 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles.

Purity

Greater than 99.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Gln-Ser-Glu-Val-Ser.

Activity

The Biological activity is calculated by its ability to chemoattract human T cells at 10 - 100 ng/ml corresponding to a specific activity of 10,000 - 100,000 IU/mg.

Usage

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