

**DESCRIPTION**

**Source** *E. coli*-derived human XCL1/Lymphotactin protein  
Val22-Gly114, with an N-terminal Met  
Accession # P47992

**N-terminal Sequence Analysis** Met

**Predicted Molecular Mass** 10.4 kDa

**SPECIFICATIONS**

**Activity** Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with human XCR1.  
The ED<sub>50</sub> for this effect is 0.0800-0.500 µg/mL.

**Endotoxin Level** <0.10 EU per 1 µg of the protein by the LAL method.

**Purity** >97%, by SDS-PAGE under reducing conditions and visualized by silver stain.

**Formulation** Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

**Reconstitution** Reconstitute at 100 µg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.

**Shipping** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

**BACKGROUND**

Human lymphotactin (Lptn)/XCL1 (also named human SCM-1α and ATAC) and its mouse homologue belong to the C or γ subfamily of chemokines. The C chemokines lack two (the 1st and 3rd) of the four invariant cysteine residues normally found in the CC and CXC chemokines and have an extended carboxy terminus. Human lymphotactin encodes a 114 amino acid residue precursor protein with a 21 amino acid residue predicted signal peptide. The expression of lymphotactin is abundant in some activated T cells such as activated CD8<sup>+</sup> T cells and other class I MHC restricted T cells. Lptn expression is absent in CD4<sup>+</sup> T cells. Human and mouse Lptn share approximately 60% amino acid sequence homology. The gene for lymphotactin has been mapped to chromosome 1 in both human and mouse. Recombinant human lymphotactin has been shown to have chemotactic activity for lymphocytes and NK cells. The orphan receptor GPR5 has been reported to be the specific receptor for Lptn.

**References:**

1. Kennedy, J. *et al.* (1995) *J. Immunol.* **155**:203.
2. Zlotnik, A. *et al.* (1999) *Critical Reviews in Immunol.* **19**:1.