

## Lymphotactin/XCL1 Protein, Human, Recombinant (His)

### General Information

Synonyms:	SCM1;SCM-1;SCYC1;LTN;LPTN;SCM-1a;ATAC;SCM1A;chemokine (C motif) ligand 1
Protein Construction:	A DNA sequence encoding the human XCL1 (P47992) (Met 1-Gly 114) was expressed, fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Val 22
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	P47992
Molecular Weight:	11.6 kDa (predicted); 15-20 kDa (reducing conditions)

### QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Tris, 500 mM NaCl, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

**Reconstitution:**  
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

**Stability & Storage:**  
It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

**Shipping:**  
In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

This antimicrobial gene encodes a member of the chemokine superfamily. Chemokines function in inflammatory and immunological responses, inducing leukocyte migration and activation. The encoded protein is a member of the C-chemokine subfamily, retaining only two of four cysteines conserved in other chemokines, and is thought to be specifically chemotactic for T cells. This gene and a closely related family member are located on the long arm of chromosome 1. Cancer Immunotherapy/Immune Checkpoint/Immunotherapy/Targeted Therapy

### Reference

- Nguyen KD,et al. (2008) XCL1 enhances regulatory activities of CD4+CD25(high) CD127(low/-) T cells in human allergic asthma. *J Immunol.* 181 (8): 5386-95.
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- Zavala-Flores LM,et al. (2009) Production of biologically active human lymphotactin (XCL1) by *Lactococcus lactis*. *Biotechnol Lett.* 31 (2): 215-20.
- Guzzo C, Fox JC, Miao H, Volkman BF, Lusso P. Structural Determinants for the Selective Anti-HIV-1 Activity of the All- $\beta$  Alternative Conformer of XCL1. Kirchhoff F, ed. *Journal of Virology.* 2015;89(17):9061-9067.

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