

Lymphotactin/XCL1 Protein, Canine, Recombinant (His)

General Information

Synonyms:	chemokine (C motif) ligand 1
Protein Construction:	A DNA sequence encoding the canine XCL1 (XP_547477.2) (Met1-Thr112) was expressed with a C-terminal polyhistidine tag. Predicted N terminal: Glu 25
Species:	Canine
Expression Host:	Baculovirus Insect Cells
Accession:	A0A8C0PT44
Molecular Weight:	11.34 kDa (predicted); 18-23 kDa (reducing condition, due to glycosylation)

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:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/ μ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μ m filter, containing 20 mM Tris, 500 mM NaCl, 10% glycerol, 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.
- Dong C,et al. (2005) Glycosylated recombinant human XCL1 / lymphotactin exhibits enhanced biologic activity. *J Immunol Methods.* 302 (1-2): 136-44.
- 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- β Alternative Conformer of XCL1. Kirchhoff F, ed. *Journal of Virology.* 2015;89(17):9061-9067.

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