Recombinant Human XCL2/SCM-1β

Catalog Number: 8418-X2

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived Val22-Gly114 Accession # Q9UBD3
N-terminal Sequence Analysis	Val22
Predicted Molecular Mass	10 kDa

SPECIFICATIONS

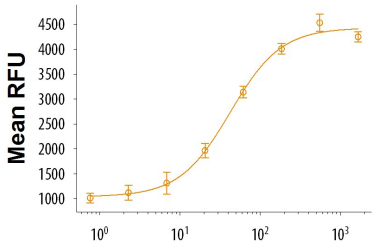
SDS-PAGE	19-22 kDa, reducing conditions
Activity	Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with human XCR1. The ED_{50} for this effecy is typically 10-60 ng/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
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 250 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.

DATA

Bioactivity



Recombinant Human XCL2/SCM-1 beta (Catalog # 8418-X2) chemoattracts BaF3 mouse pro B cells transfected with human XCR1. The ED_{50} for this effect is typically 10-60 ng/mL.

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BACKGROUND

Human XCL2 (also known as Lymphotactin-2, SCYC2, and SCM-1β) is a 10 kDa glycosylated protein in the C chemokine family (1-3). XCL1/Lymphotactin is a closely related chemokine that differs from XCL2 by only two amino acids (aa). Human XCL2 encodes a 114 amino acid aa precursor protein with a 21 aa predicted signal peptide. Members of the C chemokine family lack two (the 1st and 3rd) of the four invariant cysteine residues normally found in the CC and CXC chemokines. They also have an extended carboxy terminus (4). XCL1/Lymphotactin which is expressed in activated T cells and NK cells, while certain stimulatory conditions have been shown to induce XCL2 expression in macrophages (5-7). XCL2 and XCL1/Lymphotactin bind and activate the G protein-coupled receptor, XCR1. XCR1 is expressed on dendritic cells, T lymphocytes, and B lymphocytes (8-11). Binding of XCL2 to XCR1 initiates chemotaxic cell migration in dendritic cells as well as in T and B lymphocytes. XCR1 is also expressed on ovarian carcinoma cells and may contribute to cancer cell migration and proliferation in response to XCL2 or XCL1/Lymphotactin (12).

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