

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Fractalkine/CX3CL1, Human

Catalog Number: BK0204-5µg

Source: CHO

Quantity: 5µg

Description:

Chemokine (C-X3-C motif) ligand 1 (CX3CL1) is a known member of the CX3C chemokine family. It is also commonly known under the names fractalkine (in humans) and neurotactin (in mice). The polypeptide structure of CX3CL1 differs from the typical structure of other chemokines. For example, the spacing of the characteristic N-terminal cysteines is different; there are three amino acids separating the initial pair of cysteines in CX3CL1, while there are none in CC chemokines and only one in CXC chemokines. CX3CL1 is produced as a long protein (with 373-amino acid in humans) with an extended mucin-like stalk and a chemokine domain on top. The mucin-like stalk allows it to bind to the surface of certain cells. Soluble CX3CL1 potently chemoattracts T cells and monocytes, while the cell-bound chemokine promotes strong adhesion of leukocytes to activated endothelial cells, where it is primarily expressed. CX3CL1 can signal through the chemokine receptor CX3CR1. Recombinant Human Fractalkine/CX3CL1 produced in CHO cells is a polypeptide chain containing 315 amino acids. A fully biologically active molecule, rhFractalkine/CX3CL1 has a molecular mass of 50-75 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Molecular Weight:

50-75 kDa, observed by reducing SDS-PAGE.

Purity:

> 95% as analyzed by SDS-PAGE.

Biological Activity:

The EC50 value of Human Fractalkine/CX3CL1 on Ca²⁺ mobilization assay in CHO-K1/Gα15/hCX3CR1 cells (human Gα15 and hCX3CR1 stably expressed in CHO-K1 cells) is less than 1.5 µg/ml.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

QHHGVTKCNTCSKMTSKIPVALLIHY-
QQNQASCGKRAIILETRQHR-
LFCADPKEQWVKDAMQHLDRQAAAL-
TRNGGTFEKQIGEVKPR-
TPAAGGMDES VVLEPEATGESSSLEPTPSS-
QEAQRALGTSPLEPTGVTGSSGTRL-
PPTPKAQDGGPVGTELFRVPPVSTAAT-
WQNSAPHQPGPSLWAEAK-
TSEAPSTQDPSTQASTASS-
PAPEENAPSEGQRVWGQSQSPRPENS-
LEREEMGPVPAHTDAFQDWGPGSMAH-
VSVVPVSSEGTSPREPVASGSWTPKAEPIHAT-
MDPQRLGVLTIPVPDAQAATR

Endotoxin:

< 0.2 EU/µg, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O or PBS at 100 µg/ml.

Storage:

Lyophilized recombinant Human Fractalkine/CX3CL1 remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, Human Fractalkine/CX3CL1 should be stable up to 1 week at 4 °C or up to 3 months at -20 °C.

Usage:

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