

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Fractalkine/CX3CL1, Human

Catalog Number: BK0204-1mg

Source: CHO

Quantity: 1mg

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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