



Overview

Synonyms Fractalkine, CX3CL1

> 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 CXC3L1 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.

CHO Source

The EC₅₀ value of Human Fractalkine/CX3CL1 on Ca²⁺ mobilization assay in CHO-

Biological Activity K1/G±15/hCX3CR1 cells (human G±15 and hCX3CR1 stably expressed in CHO-K1 cells)

is less than 1.5 µg/ml.

 Gln^{25} -Arg³³⁹ (Ser199Asn) (accession #: P78423) Sequence

Properties

Description

Measured Molecular 50-75 kDa, observed by reducing SDS-PAGE. Weight

Purity > 95% as analyzed by SDS-PAGE.

Formulation Lyophilized after extensive dialysis against PBS. Reconstitution Reconstituted in ddH₂O or PBS at 100 µg/ml. < 0.2 EU/µg, determined by LAL method. **Endotoxin Level**

Lyophilized recombinant Human Fractalkine/CX3CL1 remains stable up to 6 months at

Storage lower than -70°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.

Note For research use only

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