



Fractalkine, human recombinant

Catalog No: 97059
Lot No: XXXXX
Source: *E. coli*
Synonyms: Fractalkine, CX3CL1, Neutactin, CX3C membrane-anchored chemokine, Small inducible cytokine D1, NTN, NTT, CXC3, CXC3C, SCYD1, ABCD-3, C3Xkine

Background

Fractalkine soluble form is chemotactic for t-cells and monocytes, but not for neutrophils. Fractalkine membrane-bound form promotes adhesion of those leukocytes to endothelial cells. Fractalkine regulates leukocyte adhesion and migration processes at the endothelium and binds to CX3CR1. Natural Human Fractalkine is produced as a long protein (373-amino acid) with an extended mucin-like stalk and a chemokine domain on top. The mucin-like stalk permits it to bind to the cell surface. Fractalkine gene is located on human chromosome 16 along with some CC chemokines known as CCL17 and CCL22.

Description

Fractalkine human recombinant, produced in *E. coli*, is a single non-glycosylated, polypeptide chain containing 76 amino acids and having a molecular mass of 8638 Dalton. Fractalkine is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The CX3CL1 was lyophilized from a 0.2 µm filtered concentrated (1.0 mg/ml) solution in 20 mM phosphate buffer, pH 7.4, 50 mM NaCl.

Solubility

It is recommended to reconstitute the lyophilized CX3CL1 in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized CX3CL1, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CX3CL1 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

QHHGVTKCNI TCSKMTSKIP VALLIHYQQN QASCGKRAII LETRQHRLFC ADPKEQWVKD AMQHLLDRQAA ALTRNG

Activity

The biological activity is calculated by its ability to chemoattract human T-Lymphocytes using a concentration range of 5.0 - 10.0 ng/ml corresponding to a specific activity of 100,000 - 200,000 IU/mg.

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