

Active Recombinant Rat Cx3cl1 Protein (310 aa)

Cat. No. Cx3cl1-189C **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant rat Fractalkine/CX3CL1 produced in HEK293 cells is a polypeptide chain containing 310 amino acids. A fully biologically active molecule, rrFractalkine/CX3CL1 has a molecular mass of 70-90 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.

Species

Rat

Source

HEK293

ProteinLength

310

Description

Chemokine (C-X3-C motif) ligand 1 (CX3CL1) is a large cytokine protein of 373 amino acids. It contains multiple domains and is the only 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.

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Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	The EC50 value of rat Fractalkine/CX3CL1 on Ca ²⁺ mobilization assay in CHO-K1/Gα15/rCX3CR1 cells (human Gα15 and rat CX3CR1 stably expressed in CHO-K1 cells) is less than 1 µg/mL.
Molecular Mass	70-90 kDa, observed by reducing SDS-PAGE.
AA Sequence	QHLGMTKCNITCHKMTSPIPVTLIIHYQLNQESCGKRAIILETRQHRHFCADPKEKWV QDAMKHLHDHQTAALTRNGGKFEKRVDNVTPRITSATRGLSPTALAKPESATVEDLTL EPTAISQEARRPMGTSQEPPAAVTGSSPSTSKAQDAGLAAKPQSTGISEVAAVSTTI WPSSAVYQSGSSLWAEKATESPPTIALSTQASTTSSPKQNVGSEGQPPWVQEQQD STPEKSPGPEETNPVHTDIFQDRGPGSTVHPSVAPTSSEKTPSPELVASGSQAPKV EEPIHATADPQKLSVFITPVPDSQAAT
Endotoxin	< 0.2 EU/µg, determined by LAL method.
Purity	> 98% as analyzed by SDS-PAGE.
Storage	Lyophilized recombinant Rat Fractalkine/CX3CL1 remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, recombinant Rat Fractalkine/CX3CL1 should be stable up to 1 week at 4 centigrade or up to 2 months at -20 centigrade.
Storage Buffer	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O or PBS at 100 µg/mL.

GENE INFORMATION

Gene Name	Cx3cl1 chemokine (C-X3-C motif) ligand 1 [<i>Rattus norvegicus</i>]
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Official Symbol	Cx3cl1
Synonyms	CX3CL1; chemokine (C-X3-C motif) ligand 1; fractalkine; neurotactin; C-X3-C motif chemokine 1; small-inducible cytokine D1; CX3C membrane-anchored chemokine; small inducible cytokine subfamily D, 1; Cx3c; Scyd1;
Gene ID	89808
mRNA Refseq	NM_134455
Protein Refseq	NP_604450
UniProt ID	Q6IRF7

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