

## Recombinant Human Fractalkine/CX3CL1

### Information

<b>Gene ID</b>	6376
<b>Accession #</b>	P78423
<b>Alternate Names</b>	C-X3-C motif chemokine 1, CX3C membrane-anchored chemokine, Neurotactin, Small-inducible cytokine D1
<b>Source</b>	Escherichia coli.
<b>M.Wt</b>	Approximately 8.6 kDa, a single non-glycosylated polypeptide chain containing 76 amino acids and comprises only the chemokine domain of Human Fractalkine.
<b>AA Sequence</b>	QHHGVTKCNI TCSKMTSKIP VALLIHYQQN QASCGKRAII LETRQHRLFC ADPKEQWVKD AMQHLDLRQAA ALTRNG
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4, 50 mM NaCl.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Biological Activity</b>	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human T-lymphocytes is in a concentration of 5.0-10 ng/ml.
<b>Shipping Condition</b>	Gel pack.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	5µg	100µg	500µg
Recombinant Human Fractalkine/CX3CL1	5µg	100µg	500µg

Use a manual defrost freezer and avoid repeated freeze-thaw cycles

- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

## Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/ $\mu$ g of rHuFractalkine/CX3CL1 as determined by LAL method.

## Description

CX3CL1 recently identified through bioinformatics is the only known member of the CX3C chemokine family and it is also commonly known under the names fractalkine (in humans) and neurotactin (in mice). Unlike other known chemokines, CX3CL1 is a type 1 membrane protein containing a chemokine domain tethered on a long mucinlike stalk. The soluble form of CX3CL1 is chemotactic for T-cells and monocytes, but not for neutrophils. In addition, it may play a role in regulating leukocyte adhesion and migration processes at the endothelium. Recombinant Human CX3CL1 which is a single non-glycosylated polypeptide chains contains 76 amino acids and it shares approximately 78 % and 83 % amino acid sequence homology with the murine and rat protein.

## Reference

1. Umehara H, Bloom ET, Okazaki T, et al. 2004. Arterioscler Thromb Vasc Biol. 24:34-40
2. Umehara H, Tanaka M, Sawaki T, et al. 2006. Mod Rheumatol. 16:124-30
3. Bazan JF, Bacon KB, Hardiman G, et al. 1997. Nature. 385:640-4
4. Mizoue LS, Bazan JF, Johnson EC, et al. 1999. Biochemistry. 38:1402-14.

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