

## Active Recombinant Human CX3CL1 protein, His-tagged

**Cat. No.** CX3CL1-765H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Active Recombinant Human CX3CL1 protein(P78423)(81~336 aa), fused with N-terminal His tag, was expressed in E.coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ProteinLength</b>    | 81-336 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Form</b>             | Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Bio-activity</b>     | Chemokine C-X3-C-Motif Ligand 1 (CX3CL1) also known as fractalkine is a large cytokine protein of 373 amino acids, it contains multiple domains and is the only known member of the CX3C chemokine family. 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. Thus, chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of CX3CL1 on the human monocytic cell line THP-1. Briefly, THP-1 cells were seeded into the upper chambers (150ul cell suspension, $10^6$ cells/ml in RPMI 1640 with FBS free) and CX3CL1 (0.1ng/ml, 0.01ng/ml, 0.001ng/ml, 0.0001 and 0.00001ng/ml diluted separately in serum free RPMI 1640 ) was added in lower chamber with a polycarbonate filter(8um pore size) used to separate the two compartments. After incubation at 37°C with 5% CO <sub>2</sub> for 1h, |

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the filter was removed, then cells in low chamber were observed by inverted microscope at low magnification ( $\times 10$ ) and the number of migrated cells were counted using Fluorescence Activating Cell Sorter. Result shows CX3CL1 is able to induce migration of THP-1 cells. The migrated THP-1 cells in low chamber at low magnification ( $\times 10$ ) were shown. Statistical results of FACS were shown. The optimum chemotaxis of CX3CL1 occurs at 0.001-0.00001 ng/ml.

|                       |                                                                                                            |
|-----------------------|------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 28.5kDa                                                                                                    |
| <b>Endotoxin</b>      | <1.0EU per 1 $\mu$ g (determined by the LAL method).                                                       |
| <b>Purity</b>         | > 95% as determined by SDS-PAGE.                                                                           |
| <b>Storage</b>        | Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months. |
| <b>Reconstitution</b> | Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.                       |

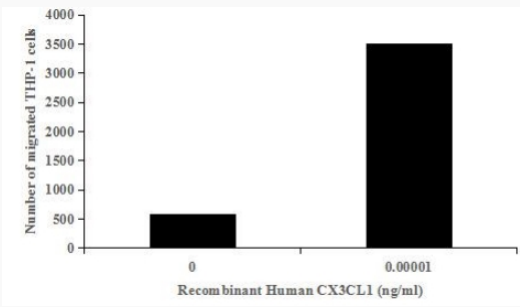
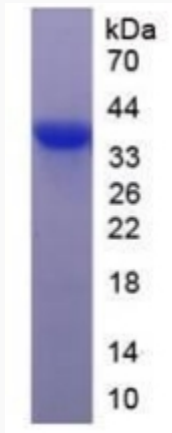
## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | CX3CL1 chemokine (C-X3-C motif) ligand 1 [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Official Symbol</b> | CX3CL1                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Synonyms</b>        | CX3CL1; chemokine (C-X3-C motif) ligand 1; SCYD1, small inducible cytokine subfamily D (Cys X3 Cys), member 1 (fractalkine, neurotactin); fractalkine; ABCD 3; C3Xkine; CXC3; CXC3C; neurotactin; NTN; C-X3-C motif chemokine 1; small-inducible cytokine D1; CX3C membrane-anchored chemokine; small inducible cytokine subfamily D (Cys-X3-Cys), member-1; small inducible cytokine subfamily D (Cys-X3-Cys), member 1 (fractalkine, neurotactin); NTT; SCYD1; ABCD-3; |

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| Gene ID                          | 6376                                                                                                                                                                                                                                                                                                                                                                                 |                                  |                                |   |      |         |       |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------|---|------|---------|-------|
| mRNA Refseq                      | NM_002996                                                                                                                                                                                                                                                                                                                                                                            |                                  |                                |   |      |         |       |
| Protein Refseq                   | NP_002987                                                                                                                                                                                                                                                                                                                                                                            |                                  |                                |   |      |         |       |
| MIM                              | 601880                                                                                                                                                                                                                                                                                                                                                                               |                                  |                                |   |      |         |       |
| UniProt ID                       | P78423                                                                                                                                                                                                                                                                                                                                                                               |                                  |                                |   |      |         |       |
| Activity                         |  <table border="1"> <caption>Activity Data: THP-1 Cell Migration</caption> <thead> <tr> <th>Recombinant Human CX3CL1 (ng/ml)</th> <th>Number of migrated THP-1 cells</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>~500</td> </tr> <tr> <td>0.00001</td> <td>~3500</td> </tr> </tbody> </table> | Recombinant Human CX3CL1 (ng/ml) | Number of migrated THP-1 cells | 0 | ~500 | 0.00001 | ~3500 |
| Recombinant Human CX3CL1 (ng/ml) | Number of migrated THP-1 cells                                                                                                                                                                                                                                                                                                                                                       |                                  |                                |   |      |         |       |
| 0                                | ~500                                                                                                                                                                                                                                                                                                                                                                                 |                                  |                                |   |      |         |       |
| 0.00001                          | ~3500                                                                                                                                                                                                                                                                                                                                                                                |                                  |                                |   |      |         |       |
| SDS-PAGE                         |                                                                                                                                                                                                                                                                                                  |                                  |                                |   |      |         |       |