

# Active Recombinant Human CX3CL1 protein, His/Avi-tagged, Biotinylated

Cat. No. CX3CL1-051H Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	Biotinylated Recombinant Human CX3CL1(Gln25-Thr338) protein, fused to His/Avi tag at the C-terminus, was expressed in HEK293 cells .
<b>Species</b>	Human
<b>Source</b>	HEK293
<b>ProteinLength</b>	Gln25-Thr338
<b>Description</b>	<p>Fractalkine, also known as CX3C motif chemokine 1, CX3CL1, neurotactin and small-inducible cytokine D1, is the only member of the CX3C subfamily of the chemokine superfamily (1). Mature human Fractalkine consists of an N-terminal chemokine domain with a CX3C motif and a mucin-like stalk region in the extracellular domain (ECD), a transmembrane segment and a short cytoplasmic domain (1, 2). The soluble form of Fractalkine is generated via ADAM10 and ADAM17 cleavage (1). Within the ECD, human Fractalkine shares 59% amino acid sequence identity with both mouse and rat Fractalkine. Fractalkine exists as both a membrane-bound adhesion molecule and as a soluble proinflammatory chemoattractant and anti-inflammatory neuroprotective agent (1-3). The expression of CX3CL1 is higher in spinal metastases from kidney cancer (4). The expression of CX3CL1 was also reported to be up-regulated in endothelial cells and microglia by inflammatory signals. Membrane-bound CX3CL1 has been shown to promote adhesion of leukocytes. The soluble chemokine domain of human CX3CL1 was reported to be chemotactic for T</p>

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

cells and monocytes while the soluble chemokine domain of mouse CX3CL1 was reported to chemoattract neutrophils and T-lymphocytes but not monocytes (5). Most of the functions of CX3CL1 are exerted through the CX3CL1/CX3CR1 axis which has the therapeutic prospect (5, 6). Our Avi-tag Biotinylated Recombinant Fractalkine features biotinylation at a single site contained within the Avi-tag, a unique 15 amino acid peptide. Protein orientation will be uniform when bound to streptavidin-coated surface due to the precise control of biotinylation and the rest of the protein is unchanged so there is no interference in the protein's bioactivity.

<b>Predicted N Terminal</b>	Gln25, inferred from enzymatic pyroglutamate treatment revealing His26
<b>Form</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
<b>Bio-activity</b>	Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with mouse CX3CR1. The ED50 for this effect is 20-100 ng/mL. Measured by its binding ability in a functional ELISA.
<b>Molecular Mass</b>	88-103 kDa, under reducing conditions
<b>Endotoxin</b>	<1.0 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Applications</b>	Binding Activity, Bioactivity
<b>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.

 Tel: 1-631-559-9269 1-516-512-3133


 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

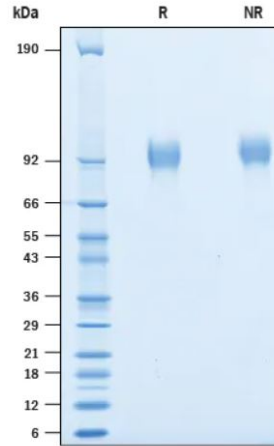
<b>Reconstitution</b>	Reconstitute at 500 µg/mL in PBS.
<b>Conjugation</b>	Biotin
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	CX3CL1 chemokine (C-X3-C motif) ligand 1 [ Homo sapiens ]
<b>Official Symbol</b>	CX3CL1
<b>Synonyms</b>	CX3CL1; chemokine (C-X3-C motif) ligand 1; SCYD1, small inducible cytokine 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;
<b>Gene ID</b>	6376
<b>mRNA Refseq</b>	NM_002996
<b>Protein Refseq</b>	NP_002987
<b>MIM</b>	601880
<b>UniProt ID</b>	P78423

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

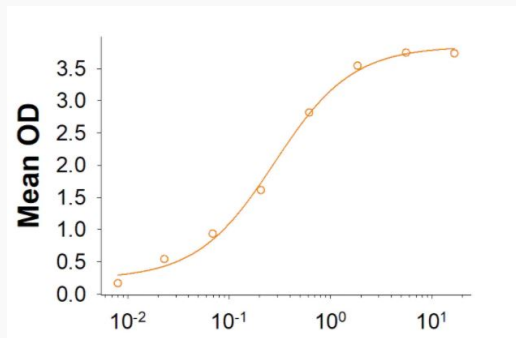
 45-1 Ramsey Road, Shirley, NY 11967, USA


**SDS-PAGE**



2  $\mu$ g/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie<sup>®</sup> Blue staining.

**Binding Activity**



 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA