

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

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

SPECIFICATION

Product Overview	Biotinylated Recombinant Human CX3CL1(Gln25-Thr338) protein, fused to His/Avi tag at the C-terminus, was expressed in HEK293 cells .
Species	Human
Source	HEK293
ProteinLength	Gln25-Thr338
Description	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

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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.

Predicted N Terminal	Gln25, inferred from enzymatic pyroglutamate treatment revealing His26
Form	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Bio-activity	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.
Molecular Mass	88-103 kDa, under reducing conditions
Endotoxin	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Applications	Binding Activity, Bioactivity
Storage	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.

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Reconstitution Reconstitute at 500 µg/mL in PBS.

Conjugation Biotin

GENE INFORMATION

Gene Name CX3CL1 chemokine (C-X3-C motif) ligand 1 [Homo sapiens]

Official Symbol CX3CL1

Synonyms

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;

Gene ID 6376

mRNA Refseq NM_002996

Protein Refseq NP_002987

MIM 601880

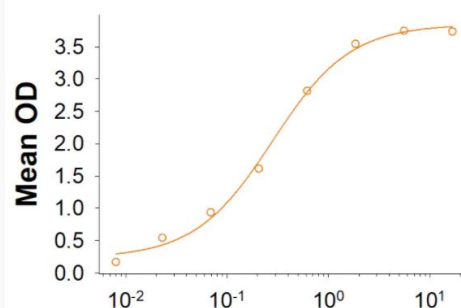
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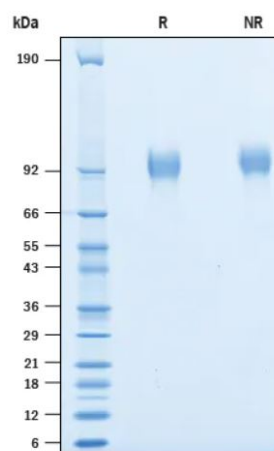
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Binding Activity



SDS-PAGE



2 µg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.