

## Ultra-LEAF™ Purified anti-mouse CX3CL1 (Fractalkine) Antibody

<b>Catalog# / Size</b>	938903 / 100 µg 938904 / 1 mg
<b>Clone</b>	A19080D
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Small inducible cytokine subfamily D, member 1 (SCYD1), Neurotactin (NTT, NTN)
<b>Isotype</b>	Rat IgG2b, κ
<b>Description</b>	CX3CL1 is a unique chemokine subclass, synthesized as a transmembrane molecule. It consists of an extracellular NH <sub>2</sub> -terminal domain, a mucin-like stalk, a transmembrane α helix, and a short cytoplasmic tail. CX3CL1 exists in two forms: as a membrane-anchored or as a shed 80-95K glycoprotein. Soluble CX3CL1 is generated by limited proteolysis on the cell surface, and a disintegrin and metalloproteinase 10 (ADAM10) and ADAM17/tumor necrosis factor-α-converting enzyme (ADAM17/TACE) participate in this shedding. It has been suggested that ADAM10 acts in the constitutive shedding, and ADAM17 acts in response to cell activation. CX3CL1 is associated with the development of different diseases such as rheumatoid arthritis (RA), rheumatoid vasculitis (RV), Sjögren's syndrome (SS), systemic lupus erythematosus (SLE), scleroderma, multiple sclerosis, and atherosclerosis. Soluble fractalkine has been detected in the cerebrospinal fluid of patients with neuropsychiatric lupus, and is present at higher levels in the serum of patients with SS, RA, and type 2 diabetes than in control subjects.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	Recombinant mouse CX3CL1 (Fractalkine)
<b>Formulation</b>	0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is < 0.01 EU/µg of the protein (< 0.001 ng/µg of the protein) as determined by the LAL test.
<b>Preparation</b>	The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.
<b>Concentration</b>	The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. To obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
<b>Application</b>	<a href="#">Neut - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by neutralization of the chemotaxis induced by recombinant mouse CX3CL1 (Fractalkine) (2 µg/mL) on mouse Baf3-mCX3CR1 transfectant chemoattractant cells. ND <sub>50</sub> range: 2-10 µg/mL. It is recommended that the reagent be titrated for optimal performance for each application.
<b>RRID</b>	AB_2894524 (BioLegend Cat. No. 938903) AB_2894524 (BioLegend Cat. No. 938904)

### Antigen Details

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<b>Structure</b>	Chemokine
<b>Distribution</b>	Microglia, endothelial cells, fibroblasts, neuronal cells, hepatocytes, smooth muscle cells,

monocytes, adipocytes, and human astrocytes stimulated by TNF- $\alpha$  and IFN- $\gamma$ . CX3CL1 is also expressed in macrophages, fibroblasts, endothelial, and dendritic cells in RA synovial tissue

<b>Function</b>	CX3CL1 has potent chemoattractant activity for T cells, monocytes, and natural killer cells, and the expression of CX3CL1 in activated endothelial cells promotes strong adhesion of those leukocytes. CX3CL1 is induced in endothelial cells by proinflammatory cytokines (TNF- $\alpha$ , IFN- $\gamma$ , IL-1 $\beta$ ) and LPS.
<b>Interaction</b>	Monocytic cells, smooth muscle cells, T cells, B lymphocytes, NK cells, microglia, and astrocytes
<b>Ligand/Receptor</b>	CX3CR1
<b>Cell Type</b>	B cells, Endothelial cells, Microglia
<b>Biology Area</b>	Cell Biology, Neuroscience, Signal Transduction
<b>Molecular Family</b>	Cytokines/Chemokines
<b>Antigen References</b>	

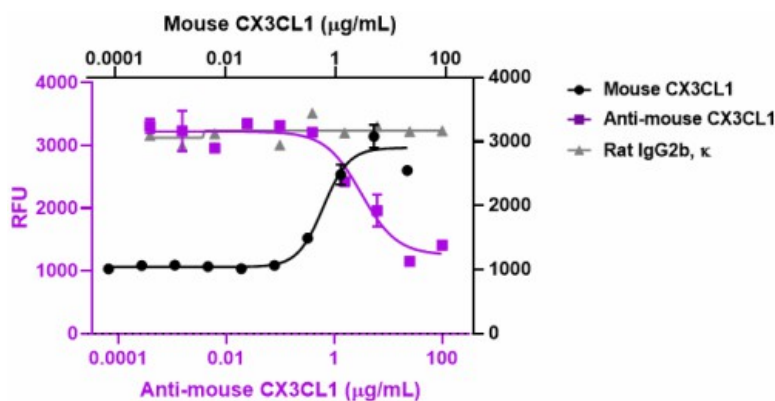
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2. Hundhausen C, *et al.* 2003. *Blood*. 102:1186.
3. Sato E, *et al.* 2006. *Ann Rheum Dis*. 65:1257.
4. Hundhausen C, *et al.* 2007 *J Immunol*. 178:8064.
5. Jones B, *et al.* 2011. *Front Immunol*. 2:82.
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Gene ID [20312](#)

## Other Formats

Ultra-LEAF™ Purified anti-mouse CX3CL1 (Fractalkine)

## Product Data



Recombinant mouse CX3CL1 (Fractalkine) (Cat. No. 583506) (black circles) induces the chemotaxis of mouse Baf3-mCX3CR1 transfectant chemoattractant cells. Ultra-LEAF™ purified anti-mouse CX3CL1 (Fractalkine) antibody (clone A19080D) (purple squares) neutralizes the chemotaxis of recombinant mouse CX3CL1 (Fractalkine) at 2 µg/mL on mouse Baf3-mCX3CR1 cells in a dose-dependent manner whereas the GolnVivo™ purified rat IgG2b,  $\kappa$  isotype ctrl antibody (Cat. No. 400666) (gray triangles) does not have the effect. ND50 range: 2-10 µg /mL.

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 [www.biolegend.com](http://www.biolegend.com)  
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587