

# Human CX3CL1/Fractalkine Chemokine Domain Alexa Fluor® 594-conjugated Antibody

Monoclonal Mouse IgG<sub>1</sub> Clone # 51637

Catalog Number: IC365T

DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human CX3CL1/Fractalkine Chemokine Domain in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse CX3CL1 or recombinant rat CX3CL1 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 51637
<b>Purification</b>	Protein A or G purified from ascites
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human CX3CL1/Fractalkine Chemokine Domain Gln25-Arg339 (Ser199Asn) (predicted) Accession # P78423
<b>Conjugate</b>	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS		
<b>Please Note:</b> Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.		
	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Intracellular Staining by Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	Human CX3CL1/Fractalkine transfected NS0 cells fixed with paraformaldehyde and permeabilized with saponin

PREPARATION AND STORAGE	
<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

**BACKGROUND**

CX3CL1, also named neurotactin, is a novel chemokine identified through bioinformatics. CX3CL1 has a unique C-X3-C cysteine motif near the amino-terminus and is the first member of a fourth branch of the chemokine superfamily. Unlike other known chemokines, CX3CL1 is a type 1 membrane protein containing a chemokine domain tethered on a long mucin-like stalk. Human CX3CL1 cDNA encodes a 397 amino acid (aa) residue membrane protein with a 24 aa residue predicted signal peptide, a 76 aa residue chemokine domain, a 241 aa residue stalk region containing 17 degenerate mucin-like repeats, a 19 aa residue transmembrane segment and a 37 aa residue cytoplasmic domain. The extracellular domain of human CX3CL1 can be released, possibly by proteolysis at the dibasic cleavage site proximal to the membrane, to generate soluble CX3CL1. CX3CL1 mRNA has been detected in various tissues including the brain and heart. 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 cells and monocytes while the soluble chemokine domain of mouse CX3CL1 was reported to chemoattract neutrophils and T-lymphocytes but not monocytes.

**References:**

1. Pan, Y. *et al.* (1997) *Nature* **387**:611.
2. Bazan, J.F. *et al.* (1997) *Nature* **385**:640.
3. Mackay, C.R. (1997) *Current Biology* **7**:R384.

**PRODUCT SPECIFIC NOTICES**

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