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CX3CL1 Antibody

Catalog # ASC10057

Product Information

Application	WB, IP, E
Primary Accession	P78423
Other Accession	AAB50014, 1899259
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	42203
Conjugate	Unconjugated
Application Notes	CX3CL1 antibody can be used for detection of CX3CL1 by Western blot at 0.5 - 2 g/mL dilution. CX3CL1 is ofen observed migrating at 80 - 100 kDa in SDS-PAGE, presumably due to post-translational modification.

Additional Information

Gene ID	6376
Other Names	CX3CL1 Antibody: NTN, NTT, CXC3, CXC3C, SCYD1, ABCD-3, C3Xkine, fractalkine, neurotactin, FKN, A-152E5.2, Fractalkine, C-X3-C motif chemokine 1, chemokine (C-X3-C motif) ligand 1
Target/Specificity	CX3CL1;
Reconstitution & Storage	CX3CL1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	CX3CL1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CX3CL1 {ECO:0000303|PubMed:9024663}
Function	Chemokine that acts as a ligand for both CX3CR1 and integrins ITGAV:ITGB3 and ITGA4:ITGB1 (PubMed:12055230, PubMed:21829356, PubMed:23125415, PubMed:9782118, PubMed:9931005). The CX3CR1-CX3CL1 signaling exerts distinct functions in different tissue compartments, such as immune response, inflammation, cell adhesion and chemotaxis (PubMed:12055230, PubMed:9024663, PubMed:9177350, PubMed:9782118). Regulates leukocyte adhesion and migration processes at the endothelium (PubMed:9024663, PubMed:9177350). Can activate integrins in both a CX3CR1-dependent and CX3CR1-independent manner (PubMed:23125415, PubMed:24789099). In the

	presence of CX3CR1, activates integrins by binding to the classical ligand-binding site (site 1) in integrins (PubMed:23125415, PubMed:24789099). In the absence of CX3CR1, binds to a second site (site 2) in integrins which is distinct from site 1 and enhances the binding of other integrin ligands to site 1 (PubMed:23125415, PubMed:24789099).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Expressed in the seminal plasma, endometrial fluid and follicular fluid (at protein level). Small intestine, colon, testis, prostate, heart, brain, lung, skeletal muscle, kidney and pancreas. Most abundant in the brain and heart

Background

CX3CL1 Antibody: Chemokines are a family of proteins associated with the trafficking of leukocytes in immune surveillance and inflammatory cell recruitment. They are classified based on the positions of key cysteine residues. CX3CL1 is a CX3C chemokine known to induce adhesion and migration of leukocytes mediated by a membrane-bound and soluble form respectively. Recent experiments have shown that CX3CL1 can suppress the production of nitrous oxide, interleukin-6, and TNF-α in activated microglia and neuronal cells, suggesting that it may act as an intrinsic inhibitor against neurotoxicity by activated microglia. Its receptor, CX3CR1, also functions as a co-receptor for HIV-1 and HIV-2 envelope fusion and virus infection, which can be inhibited by CX3CL1.

References

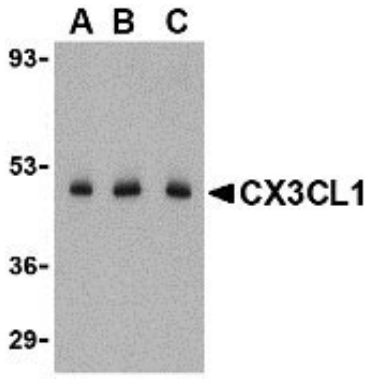
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Umehara H, Goda S, Imai T, et al. Fractalkine, a CX3C-chemokine, functions predominantly as an adhesion molecule in monocytic cell line THP-1. Immunol. Cell. Biol. 2001; 79:298-302.

Mizuno T, Kawanokuchi J, Numata K, et al. Production and neuroprotective functions of fractalkine in the central nervous system. Brain Res. 2003; 979:65-70.

Combadiere C, Salzwedel K, Smith ED, et al. Identification of CX3CR1. A chemotactic receptor for the human CX3C chemokine fractalkine and a fusion coreceptor for HIV-1. J. Biol. Chem.1998; 273:23799-804.

Images



Western blot analysis of CX3CL1 in C2C12 cell lysate with CX3CL1 antibody at (A) 0.5, (B) 1 and (C) 2 µg/mL.

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