10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CX3CL1 Rabbit pAb

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Catalog # AP52235

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P78423
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	42203
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CX3CL1
Epitope Specificity	301-397/397
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane; Single-pass type I membrane protein. Processed fractalkine: Secreted.
SIMILARITY	Belongs to the intercrine delta family.
SUBUNIT	Monomer.
Post-translational modifications	A soluble short 95 kDa form may be released by proteolytic cleavage from the long membrane-anchored form. O-glycosylated with core 1 or possibly core 8 glycans.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	CX3CL1 is a member of the delta chemokine subfamily that contains a unique CX3C cysteine motif near the N-terminal. Unlike other known chemokines, it is a type 1 membrane protein containing a chemokine domain tethered on a long mucin-like stalk. CX3CL1, a leukocyte chemoattractant, is expressed in various tissues including the brain, heart, lung, kidney, skeletal muscle, and testis. The expression is reported to be up-regulated in endothelial cells and microglia by inflammatory signals. CX3CR1, a specific receptor for fractalkine, mediates both leukocyte migration and adhesion.

Additional Information

Gene ID	6376
Other Names	Fractalkine, C-X3-C motif chemokine 1, CX3C membrane-anchored chemokine, Neurotactin, Small-inducible cytokine D1, Processed fractalkine, CX3CL1 {ECO:0000303|PubMed:9024663}
Target/Specificity	Small intestine, colon, testis, prostate, heart, brain, lung, skeletal muscle, kidney and pancreas.

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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

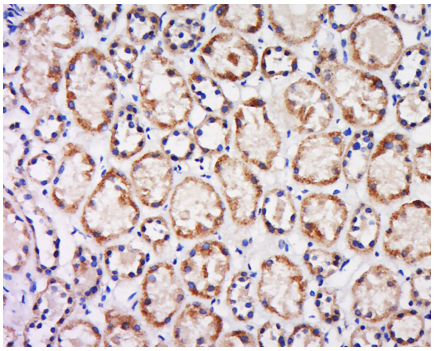
CX3CL1 is a member of the delta chemokine subfamily that contains a unique CX3C cysteine motif near the N-terminal. Unlike other known chemokines, it is a type 1 membrane protein containing a chemokine domain tethered on a long mucin-like stalk. CX3CL1, a leukocyte chemoattractant, is expressed in various tissues including the brain, heart, lung, kidney, skeletal muscle, and testis. The expression is reported to be up-regulated in endothelial cells and microglia by inflammatory signals. CX3CR1, a specific receptor for fractalkine, mediates both leukocyte migration and adhesion.

References

Bazan J.F.,et al.Nature 385:640-644(1997).
Loftus B.J.,et al.Genomics 60:295-308(1999).
Nilsson J.,et al.Nat. Methods 6:809-811(2009).
Halim A.,et al.Mol. Cell. Proteomics 0:0-0(2011).
Mizoue L.S.,et al.Biochemistry 38:1402-1414(1999).

Images

Tissue/cell: human kidney tissue; 4%
Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling



bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-CX3CL1 Polyclonal Antibody, Unconjugated(AP52235) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining