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Rabbit Anti-CX3CL1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52235

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	P78423
Reactivity	Human, 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	NTN; NTT; CXC3; CXC3C; SCYD1; ABCD-3; C3Xkine; fractalkine; neurotactin; C-X3-C motif chemokine 1; CX3C membrane-anchored chemokine; Small-inducible cytokine D1; CX3CL1; FKN; A-152E5.2
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,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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

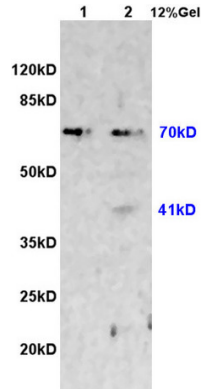
The soluble form is chemotactic for T-cells and monocytes, but not for neutrophils. The membrane-bound form promotes adhesion of those leukocytes to endothelial cells. May play a role in regulating leukocyte adhesion and migration processes at the endothelium. Binds to CX3CR1.

References

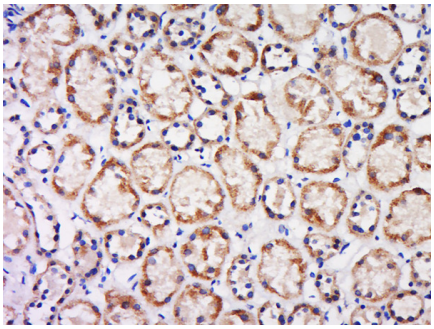
Bazan J.F.,et al.Nature 385:640-644(1997).
Loftus B.J.,et al.Genomics 60:295-308(1999).
Nilsson J.,et al.Nat. Methods 6:809-811(2009).
Halim A.,et al.Mol. Cell. Proteomics 0:0-0(2011).
Mizoue L.S.,et al.Biochemistry 38:1402-1414(1999).

Images

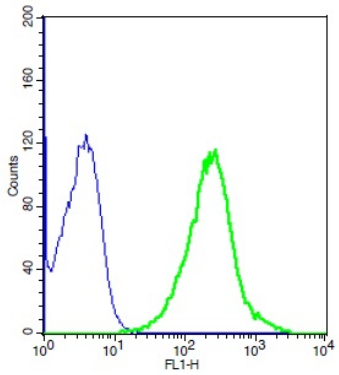
L1 rat heart lysates L2 rat brain lysates probed with Anti CX3CL1 Polyclonal Antibody, Unconjugated (AP52235) at 1:200 overnight at 4˚C. Followed by conjugation to



secondary antibody at 1:3000 for 90 min at 37˚C. Predicted band 41kD. Observed band size:41/70kD.



Paraformaldehyde-fixed, paraffin embedded human kidney; Antigen retrieval by boiling in sodium citrate buffer (pH6) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 30 minutes; Blocking buffer (normal goat serum) at 37°C for 20min; Antibody incubation with Rabbit Anti-CX3CL1 Polyclonal Antibody, Unconjugated (AP52235) at 1:200 overnight at 4°C, followed by a conjugated secondary and DAB staining.



Human A549 cell lysates probed with Rabbit Anti-CX3CL1 Polyclonal Antibody, Unconjugated (AP52235) (green) at 1:10 for 30 minutes followed by a FITC conjugated secondary antibody compared to unstained cells (blue).