Datasheet for ABIN7043045

anti-CX3CL1 antibody (Extracellular)

2 Images

Go to Product page

Overview

Quantity:	50 µL
Target:	CX3CL1
Binding Specificity:	AA 58-71, Extracellular
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CX3CL1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to CX3CL1
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: CGKRAIILETRQHR, corresponding to amino acid residues 58-71 of human CX3CL1
Isotype:	IgG
Specificity:	Extracellular, N-terminus
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Rat - identical, mouse - 12,14 amino acid residues identical
Characteristics:	Anti-CX3CL1 (extracellular) Antibody (ABIN7043045, ABIN7044192 and ABIN7044193) is a highly specific antibody directed against an epitope of the human protein. The antibody can be

Product Details

	used in western blot analysis. It has been designed to recognize CX3CL1 from human, mouse and rat samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	CX3CL1
Alternative Name:	CX3CL1 (CX3CL1 Products)
Background:	Fractalkine, C-X3-C motif chemokine 1, CX3C membrane-anchored chemokine, Neurotactin, Small-inducible cytokine D1, FKN, NTT, SCYD1,CX3C chemokine ligand 1 (CX3CL1), also known as fractalkine (FKN), is a chemokine belonging to the CX3C family. CX3CL1 is secreted by neurons and plays an important role in modulating glial activation in the central nervous system after binding to its sole receptor CX3CR1 which mainly is expressed on microglia. The CX3CL1/CX3CR1 interaction is an important bridge connecting neuron and microglia1.CX3CL1 is a large cytokine protein with an extended mucin-like stalk and a chemokine domain at the N-terminus. It is the only member of CX3C family which belongs to the large family of small secreted chemotactic cytokines. CX3CL1 is highly and constitutively expressed in hippocampal and cortical neurons. It exists in both secreted and membrane-bound form. While the secreted form contains only the chemokine domain located in the N-terminus, the membrane-bound form contains the chemokine domain, a mucin-like stalk, a transmembrane domain and an intracellular C-terminal domain. The membrane-tethered mucin stalk acts as a cell adhesion molecule adhering to microglia during an inflammatory reaction, it can be cleaved to produce a soluble glycoprotein by metalloproteinases ADAM 10 and ADAM 17 or lysosomal cysteine protease and cathepsin S (CatS), The soluble form has been proposed to act as a chemoattractant and can serve as a signaling molecule mediating neural/microglial interactions via its receptor CX3CR1, mainly expressed on microglia and partly on astrocyte as well as on neurons in the CNS. The CX3CL1/CX3CR1 interaction on microglia is likely to alter the microglial state to a more neuroprotective one. Notably, transmembrane and soluble CX3CL1 elicit different cytokine responses in immune cells1-3.CX3CL1 has been associated with learning and memory as CX3CL1 is upregulated in the rat hippocampus during memory-associated synaptic plasticity. It is considered as a potent neuromodulator of the evoked excitatory synaptic transmission and plays a major role in synaptic plasticity and neuroprotection1,4. Alternative names: Fractalkine, CX3CL1, C-X3-C motif chemokine 1, CX3C membrane-anchored

Target Details

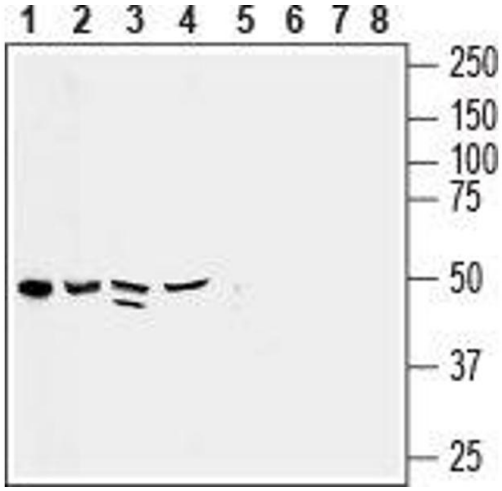
	chemokine, Neurotactin, Small-inducible cytokine D1, FKN, NTT, SCYD1
Gene ID:	6376
NCBI Accession:	NM_002996
UniProt:	P78423
Pathways:	Synaptic Membrane

Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:200 Application Dilutions Western blot wb: 1:400
Comment:	Negative Control: (ABIN7235071) Blocking Peptide: (ABIN7235071)
Restrictions:	For Research Use only

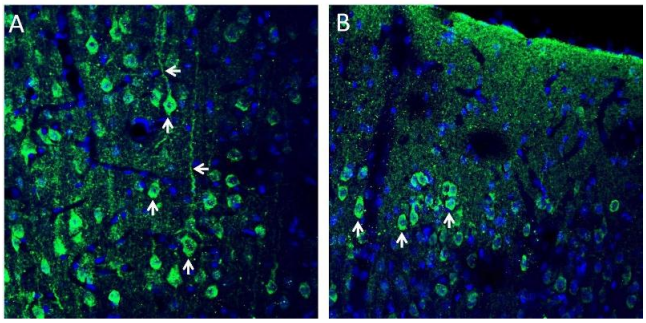
Handling

Format:	Lyophilized
Reconstitution:	Recosntitute with double distilled water (DDW) to a concentration of 1.0 mg/mL.
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).



Western Blotting

Image 1. Western blot analysis of rat heart membrane (lanes 1 and 5), human pancreatic carcinoma PANC-1 lysate (lanes 2 and 6), mouse heart membrane (lanes 3 and 7) and rat brain synaptosomal fraction (lanes 4 and 8): - 1-4. Anti-CX3CL1 (extracellular) Antibody (ABIN7043045, ABIN7044192 and ABIN7044193), (1:400). 5-8. Anti-CX3CL1 (extracellular) Antibody, preincubated with CX3CL1 (extracellular) Blocking Peptide (#BLP-CR057).



Immunohistochemistry

Image 2. Expression of CX3CL1 in rat frontal cortex - Immunohistochemical staining of perfusion-fixed frozen rat brain sections with Anti-CX3CL1 (extracellular) Antibody (ABIN7043045, ABIN7044192 and ABIN7044193), (1:200), followed by goat anti-rabbit-AlexaFluor-488. A. CX3CL1 staining (green) in the deep layer of the frontal cortex is detected in cortical neurons (vertical arrows) and their dendrites (horizontal arrows). B. CX3CL1 immunoreactivity (green) in the upper layer of the frontal cortex is observed in cortical neurons (vertical arrows). Cell nuclei are stained with DAPI (blue).