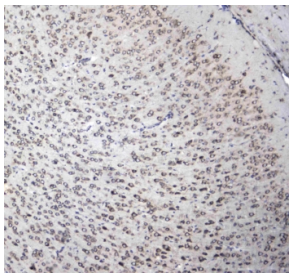
L1CAM Antibody / Neuronal Adhesion and Migration Marker (RQ4172)

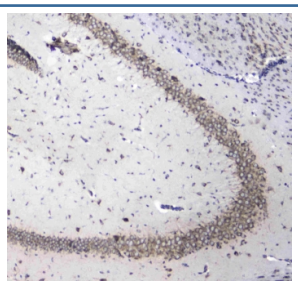
Catalog No.	Formulation	Size
RQ4172	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

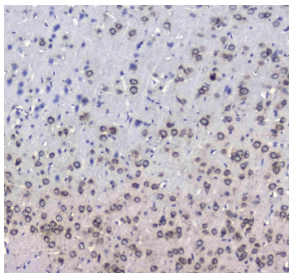
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P32004
Localization	Cytoplasmic, cell membrane
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This L1CAM Antibody / Neuronal Adhesion and Migration Marker is available for research use only.



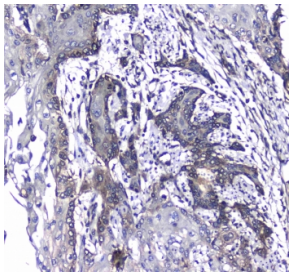
L1CAM Antibody Mouse Brain Neuronal Tissue IHC. Immunohistochemistry staining of FFPE mouse brain tissue with L1CAM Antibody / Neuronal Adhesion and Migration Marker at 1 ug/ml. Heat-induced epitope retrieval (HIER) was performed by steaming tissue sections in citrate buffer, pH 6, for 20 min followed by cooling prior to staining. L1CAM staining is observed in neuronal populations within the brain tissue, supporting its role as a neuronal adhesion and migration marker.



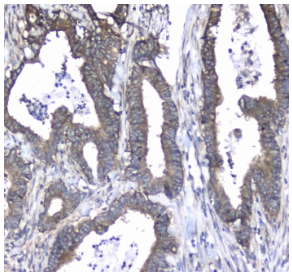
L1CAM Antibody Mouse Hippocampal Neurons IHC. Immunohistochemistry staining of FFPE mouse brain tissue with L1CAM Antibody / Neuronal Adhesion and Migration Marker at 1 ug/ml. Heat-induced epitope retrieval (HIER) was performed by steaming tissue sections in citrate buffer, pH 6, for 20 min followed by cooling prior to staining. Strong L1CAM staining is observed in hippocampal neuronal populations, supporting its role as a neuronal adhesion and migration marker.



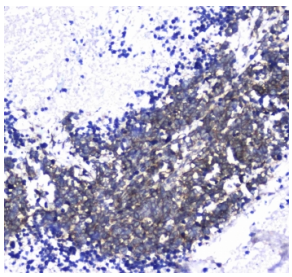
L1CAM Antibody Rat Brain Neuronal Tissue IHC. Immunohistochemistry staining of FFPE rat brain tissue with L1CAM Antibody / Neuronal Adhesion and Migration Marker at 1 ug/ml. Heat-induced epitope retrieval (HIER) was performed by steaming tissue sections in citrate buffer, pH 6, for 20 min followed by cooling prior to staining. L1CAM staining is observed in neuronal populations within the rat brain, supporting its role as a neuronal adhesion and migration marker.



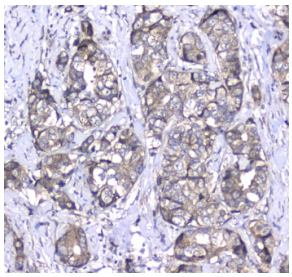
L1CAM Antibody Human Glioma Brain Tumor IHC. Immunohistochemistry staining of FFPE human glioma tissue with L1CAM Antibody / Neuronal Adhesion and Migration Marker at 1 ug/ml. Heat-induced epitope retrieval (HIER) was performed by steaming tissue sections in citrate buffer, pH 6, for 20 min followed by cooling prior to staining. L1CAM staining is observed in glioma cells, supporting analysis of this neuronal adhesion and migration marker in human brain tumors.



L1CAM Antibody Human Colon Cancer Tumor Cell IHC. Immunohistochemistry staining of FFPE human colon cancer tissue with L1CAM Antibody / Neuronal Adhesion and Migration Marker at 1 ug/ml. Heat-induced epitope retrieval (HIER) was performed by steaming tissue sections in citrate buffer, pH 6, for 20 min followed by cooling prior to staining. L1CAM staining is observed in tumor cells, supporting analysis of this neuronal adhesion and migration marker in human colon cancer.



L1CAM Antibody Human Lung Cancer Tumor Cell IHC. Immunohistochemistry staining of FFPE human lung cancer tissue with L1CAM Antibody / Neuronal Adhesion and Migration Marker at 1 ug/ml. Heat-induced epitope retrieval (HIER) was performed by steaming tissue sections in citrate buffer, pH 6, for 20 min followed by cooling prior to staining. L1CAM staining is observed in tumor cell populations, supporting analysis of this neuronal adhesion and migration marker in human lung cancer.



L1CAM Antibody Human Breast Cancer Tumor Cell IHC. Immunohistochemistry staining of FFPE human breast cancer tissue with L1CAM Antibody / Neuronal Adhesion and Migration Marker at 1 ug/ml. Heat-induced epitope retrieval (HIER) was performed by steaming tissue sections in citrate buffer, pH 6, for 20 min followed by cooling prior to staining. L1CAM staining is observed in tumor cell populations, supporting analysis of this neuronal adhesion and migration marker in human breast cancer.

Description

L1CAM Antibody / Neuronal Adhesion and Migration Marker recognizes L1CAM, a transmembrane cell adhesion molecule with important functions in nervous system development, neuronal migration and axon growth. Also known as L1 cell adhesion molecule, NCAM-L1 and CD171, L1CAM belongs to the immunoglobulin superfamily of cell adhesion molecules. The protein mediates interactions between neighboring cells and the extracellular environment and participates in signaling processes that influence neuronal development, morphology and connectivity.

L1CAM is particularly important during development of the nervous system, where it contributes to neuronal migration, neurite extension, axon guidance and fasciculation. Through homophilic L1CAM-L1CAM interactions and heterophilic

interactions with other cell-surface and extracellular proteins, L1CAM helps regulate adhesion and signaling as developing neurons establish appropriate connections. These functions make L1CAM an important neuronal adhesion and migration marker for studies of neural development, axonal organization and nervous system biology.

The biological importance of L1CAM is demonstrated by pathogenic variants in the L1CAM gene. These variants are associated with a spectrum of X-linked neurological disorders collectively referred to as L1 syndrome, which can include X-linked hydrocephalus, MASA syndrome and related neurological abnormalities. The connection between altered L1CAM function and abnormal nervous system development highlights the importance of tightly regulated cell adhesion and migration during neural development.

L1CAM is also studied extensively in cancer biology. Aberrant or elevated expression has been reported in multiple tumor types, where L1CAM has been associated with changes in tumor cell adhesion, migration, invasion and disease progression. Its roles in both neuronal biology and cancer illustrate how cell adhesion molecules can influence cellular behavior through interactions involving the cytoskeleton, extracellular environment and intracellular signaling pathways.

An L1CAM Antibody can be used to investigate neuronal adhesion and migration, axon development, nervous system biology and L1CAM expression in cancer and other disease models.

L1CAM regulates neuronal adhesion, migration and axon development, linking this cell adhesion molecule to broader research using Neuroscience Antibodies.

Application Notes

Optimal dilution of the L1CAM Antibody / Neuronal Adhesion and Migration Marker should be determined by the researcher.

Immunogen

Amino acids NMVITWKPLRWMDWNAPQVQYRVQWRPQGTRGPW were used as the immunogen for the L1CAM antibody.

Storage

After reconstitution, the L1CAM antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

L1CAM antibody, L1 Cell Adhesion Molecule antibody, Neural Cell Adhesion Molecule L1 antibody, NCAM-L1 antibody, CD171 antibody, L1 antibody

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