abcam

ab275189

Alexa Fluor® 488 Anti-L1CAM antibody [EPR23241-224]

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 488
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR23241-224
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1 µg/mL
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/50
Notes	-

IHC-P

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information L1CAM

Function	Neural cell adhesion molecule involved in the dynamics of cell adhesion and in the generation of transmembrane signals at tyrosine kinase receptors. During brain development, critical in multiple processes, including neuronal migration, axonal growth and fasciculation, and synaptogenesis. In the mature brain, plays a role in the dynamics of neuronal structure and function, including synaptic plasticity.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Store in the dark

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

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Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	L1CAM also known as neural cell adhesion molecule L1 is a transmembrane protein with a molecular weight of approximately 200-220 kDa. The L1CAM protein belongs to the immunoglobulin superfamily and is heavily glycosylated. It plays a significant role in cell adhesion processes within the nervous system. L1CAM is expressed in a variety of tissues including the brain kidney and peripheral nerves and is notably present in neuronal cells where it engages in cell-cell interactions.

	Researchers frequently use L1CAM IHC ELISA methods and specific fluorescent markers like Alexa Fluor 568 to study its expression patterns and localization.
Biological function summary	L1CAM facilitates neuronal migration axonal growth and synaptic plasticity. This protein participates in the formation and maintenance of neural networks. It interacts with other cell adhesion molecules and components of the extracellular matrix. L1CAM acts as an important modulator within neuronal signaling complexes which impacts the development and regeneration of the nervous system. Insights into its structural and cell interaction properties have made it a focus for understanding nervous system functions.
Pathways	L1CAM participates extensively in the MAPK and PI3K/AKT pathways. These pathways contribute to cellular growth survival and programmed cell death. The protein interacts with other molecules such as integrins and FGFRs to propagate signaling cascades important for cellular response mechanisms. These connections help modulate cytoskeletal dynamics influencing cellular adhesion and motility needed during brain development and response to injury.
Associated diseases and disorders	L1CAM has been associated with hydrocephalus and some cancers. Mutations in the L1CAM gene can lead to L1 syndrome which includes a spectrum of neurological disorders particularly hydrocephalus. In cancer overexpression or altered regulation of L1CAM may correlate with tumor aggressiveness and metastatic potential. L1CAM's association with integrin and cadherin proteins underlines its relevance in pathological states and highlights a potential target for therapeutic interventions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

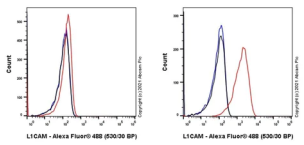
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

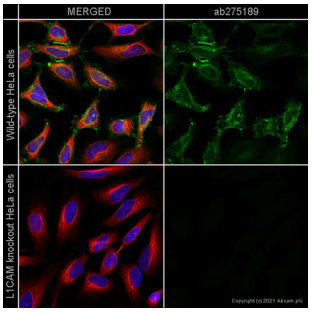
2 product images



Flow Cytometry - Alexa Fluor® 488 Anti-L1CAM antibody [EPR23241-224] (ab275189)

L1CAM Flow Cytometry staining using rabbit Anti-L1CAM antibody

Flow cytometry overlay histogram showing right HeLa positive cells and left negative L1CAM knockout HeLa cells (ab255401) cells stained with ab275189 (red line). The cells were incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab275189) (1x 10^6 in 100µl at 10µg/ml (1/50)) for 30 min on ice. Isotype control antibody (black line) was Rabbit IgG (monoclonal) Alexa Fluor 488® (ab199091) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control. 5000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter.



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-L1CAM antibody [EPR23241-224] (ab275189)

L1CAM Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-L1CAM antibody

ab275189 staining L1CAM in wild-type HeLa cells, with negative expression in L1CAM knockout HeLa cells. The cells were fixed with 100% methanol (5 min), permeabilised with 0.1% Triton x-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab275189 at 1 µg/ml (shown in Green). ab195884, Rat monoclonal to Tubulin (Alexa Fluor® 647) (shown in red) was used at 2 µg/ml for structural counterstaining.
Image was acquired with a confocal microscope (Leica-Microsystems TCS SP8) and a single confocal section is shown.

This product also work with 4% formaldehyde (10 min) fixation under the same testing conditions.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.