Mouse L1CAM PE-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 555

Catalog Number: FAB5674P

100 Tests

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse L1CAM in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) ALCAM, rhBCAM, rhEPCAM, rhMCAM, rhNCAM, rhNCAM-L1, rhOBCAM, recombinant mouse (rm)MAdCAM-1, or rmOCAM is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 555
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse cerebellum-derived partially purified L1CAM
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

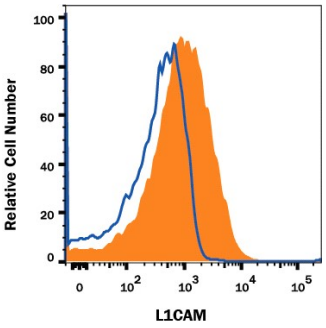
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of L1CAM in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were stained with Rat Anti-Mouse L1CAM PE-conjugated Monoclonal Antibody (Catalog # FAB5674P, filled histogram) or isotype control antibody (Catalog # IC006P, open histogram). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

L1CAM, also known as Neural Cell Adhesion Molecule L1 (NCAM-L1) and CD171, is a 200-220 kDa type I transmembrane glycoprotein belonging to the immunoglobulin superfamily, L1/Neurofascin/NgCAM family of molecules. L1CAM is expressed by neurons, especially by growing axons on their growth cones. Non-neuronal cells such as Schwann cells, astrocytes, epithelial cells, and cells of myelomonocytic and lymphoid origin also express L1CAM. Mature mouse L1CAM consists of a 1104 amino acid (aa) extracellular domain (ECD) with 6 Ig-like domains and 5 fibronectin type-III domains, a 23 aa transmembrane region, and a 114 aa cytoplasmic tail. Mouse L1CAM shares 88% aa sequence identity with human L1CAM. L1CAM is critical for neural development. Specifically, L1CAM plays a key role in neuronal cell migration, axon outgrowth, axon fasciculation, synaptogenesis, and myelination. L1CAM mediates homophilic cell-cell interaction but also binds heterophilically with Axonin-1, CD24, CD9, Neurocan and several Integrins. L1CAM can undergo membrane-proximal cleavage by ADAM10 and ADAM17, leading to the release of the soluble ECD and the generation of a membrane-bound stub. The soluble ECD can serve as a substrate for integrin-mediated cell adhesion, thereby stimulating cellular motility and cell migration. L1CAM also plays a role in the ontogeny of human tumors, and its expression is linked to poor prognosis. Proteolytic processing by ADAM10 and presenilin/γ-secretase is essential for "forward signaling" where an L1CAM intracellular domain translocates to the nucleus and participates in gene regulation. Defects in L1CAM are the cause of the neurological MASA/CRASH syndrome. In addition, uncleaved L1CAM can cluster with Integrin α5 either *in-cis,* or *in-trans,* inducing IL-1β expression and subsequent NF- κB activation. This is referred to as "reverse signaling".

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