Datasheet for ABIN2689016

anti-L1CAM antibody

10 Publications

Go to Product page

Overview

Quantity:	0.1 mg
Target:	L1CAM
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This L1CAM antibody is un-conjugated
Application:	Western Blotting (WB), Flow Cytometry (FACS), Immunofluorescence (IF), Immunoprecipitation (IP), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Brand:	BD Pharmingen™
Immunogen:	Human Neuroblastoma SK-N-AS
Clone:	5G3
Isotype:	IgG2a
Characteristics:	Neurite adhesion molecule L1 has been implicated in neuron-neuron and neuron-Schwann cell adhesion in vertebrates. L1-like molecules, found in mouse, rat, chicken, and human, promote axonal elongation and may also play a role in regeneration of axons after injury. Molecular cloning data suggest 87 % amino acid identity between mouse and human L1 Molecules. 5G3 antigen (Ag), originally defined by monoclonal antibody 5G3, is considered to be the human homologue of mouse L1. The 5G3 antibody was developed against a human neuroblastoma cell line to use as a probe for the elucidating the biological characteristics of neuroblastoma.

Product Details

	5G3 specifically recognizes a neuroblastoma target glycoprotein antigen of 215 kDa and its 200 kDa precursor. The 215 kDa molecule is expressed on the cell surface, whereas the 200 kDa precursor is shed from the cell surface. The 215 and 200 kDa species also differ in their posttranslational modification patterns. The 5G3 antibody has been used as a marker for neuroblastoma, and to purify 5G3 Ag from normal adult human brain. The antibody recognizes human L1 on human neuroblastoma cell lines and tissues. Reactivity has been tested on a variety of malignant and normal tissues. Squamous lung, squamous skin, and osteogenic sarcoma cell lines were positive, as were two out of eight melanoma cell lines tested. A variety of other cell lines and tumor tissues tested negative. 5G3 did not react with either T or B lymphoblastoid cell lines or a fibroblast cell line. Among all the normal tissues tested, mAb 5G3 reacted only with cerebellum. The molecular masses observed using mAb 5G3 may vary among immunoprecipitation isolates. In normal human cerebellum, 5G3 Ag migrated as a 190/200 kDa doublet, 140 kDa band with minor bands at 80 and 65 kDa. 5G3 Ag isolated from SK-N-AS cells migrates as 200 to 215 kDa bands, or as a diffuse band ranging from 200 to 215 kDa. Additional bands have been described at 140 to 150 kDa in SK-N-AS cells. Only the 200 kDa band has been detected in culture media from SK-N-AS cells. Profile of M21 human melanoma cells analyzed by flow cytometry using clone 5G3. Cells were incubated with either clone 5G3 (Cat. No. 554273) or with an isotype control, and then a FITC-conjugated second step antibody. BD Pharmingen™ Purified Mouse Anti-Human CD171 - Purified - Clone 5G3 - Isotype Mouse IgG2a - Reactivity Hu - 0.1 mg
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	L1CAM
Alternative Name:	CD171 (L1CAM Products)
Background:	Synonyms: L1 Neuite Cell Adhesion Molecule
Pathways:	Synaptic Membrane

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.

Application Details

Restrictions:	For Research Use only

Handling

Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

Publications

Product cited in:

Mechtersheimer, Gutwein, Agmon-Levin, Stoeck, Oleszewski, Riedle, Postina, Fahrenholz, Fogel, Lemmon, Altevogt: "Ectodomain shedding of L1 adhesion molecule promotes cell migration by autocrine binding to integrins." in: **The Journal of cell biology**, Vol. 155, Issue 4, pp. 661-73, (2001) (PubMed).

Nayeem, Silletti, Yang, Lemmon, Reisfeld, Stallcup, Montgomery: "A potential role for the plasmin(ogen) system in the posttranslational cleavage of the neural cell adhesion molecule L1. " in: **Journal of cell science**, Vol. 112 (Pt 24), pp. 4739-49, (2000) (PubMed).

Reid, Hemperly: "Variants of human L1 cell adhesion molecule arise through alternate splicing of RNA." in: **Journal of molecular neuroscience : MN**, Vol. 3, Issue 3, pp. 127-35, (1992) (PubMed).

Rathjen, Wolff, Chang, Bonhoeffer, Raper: "Neurofascin: a novel chick cell-surface glycoprotein involved in neurite-neurite interactions." in: **Cell**, Vol. 51, Issue 5, pp. 841-9, (1988) (PubMed).

Lemmon, McLoon: "The appearance of an L1-like molecule in the chick primary visual pathway." in: **The Journal of neuroscience : the official journal of the Society for Neuroscience**, Vol. 6, Issue 10, pp. 2987-94, (1986) (PubMed).

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