



Integrin β 1D (2B1)

CATALOG NUMBER: MUB0906P

CLONE: 2B1

SPECIES / ISOTYPE: mouse IgG1

PRODUCT FORM: purified monoclonal antibody

BACKGROUND

Integrins are a family of heterodimeric membrane glycoproteins consisting of non-covalently associated α and β subunits. More than 18 α and 8 β subunits with numerous splice variant isoforms have been identified in mammals. In general, integrins function as receptors for extracellular matrix proteins. Certain integrins can also bind to soluble ligands or to counter-receptors on adjacent cells, such as the intracellular adhesion molecules (ICAMs), resulting in aggregation of cells. Signals transduced by integrins play a role in many biological processes, including cell growth, differentiation, migration and apoptosis.

There are two major forms of integrin β 1: β 1A and β 1D, which differ in 13 amino acids. Their distribution pattern in adult tissues is mutually exclusive. β 1A is present in all tissues, except cardiac and skeletal muscle, which instead express the β 1D variant.

SOURCE

2B1 is a mouse monoclonal IgG1, κ antibody derived by fusion of SP2/0 mouse myeloma cells with spleen cells from a mouse immunized with a synthetic peptide corresponding to the C-terminal 24 amino acids of integrin β 1D including an appending N-terminal cysteine (CQENPIYKS-PINNFKNPNYGRKAGL) coupled to keyhole limpet hemocyanin.

PRODUCT

Each vial contains 100 μ l 1 mg/ml purified monoclonal antibody in PBS containing 0.09% sodium azide.

SPECIFICITY

2B1 recognizes specifically the cytoplasmic domain of integrin subunit β 1D present in cardiac and skeletal muscle.

2B1 is suitable for immunoblotting, immunocytochemistry and immunohistochemistry on frozen tissues. Optimal antibody dilution should be determined by titration; recommended range is 1:25 – 1:200 for immunohistochemistry with avidin-biotinylated horseradish peroxidase complex (ABC)

as detection reagent, and 1:100 – 1:1000 for immunoblotting applications.

SPECIES REACTIVITY

Human, mouse and dog. A broad species reactivity is expected because of the conserved nature of the epitope.

STORAGE

Store at 4°C, or in small aliquots at –20°C.

REFERENCES

1. van der Flier, A., Gaspar, A. C., Thorsteinsdottir, S., Baudoin, C., Groeneveld, E., Mummery, C. L., and Sonnenberg, A. (1997). Spatial and temporal expression of the beta1D integrin during mouse development, *Dev Dyn* 210, 472-86.

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WARNING and CAUTION

This product is intended FOR RESEARCH USE ONLY, and FOR TESTS IN VITRO, not for use in diagnostic or therapeutic procedures involving humans or animals.

This product contains sodium azide. To prevent formation of toxic vapors, do not mix with strong acidic solutions. To prevent formation of potentially explosive metallic azides in metal plumbing, always wash into drain with copious quantities of water.

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