abcam

Product datasheet

Anti-Integrin beta 1d antibody [2B1] ab8991

8 References 2 Images

Overview

Product name	Anti-Integrin beta 1d antibody [2B1]
Description	Mouse monoclonal [2B1] to Integrin beta 1d
Host species	Mouse
Specificity	Recognizes specifically the cytoplasmic domain of integrin subunit beta 1D present in cardiac and skeletal muscle. A broad species reactivity is expected because of the conserved nature of the epitope.
Tested applications	**Suitable for:** WB, IHC
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide corresponding to Integrin beta 1d. The immunogen corresponds to the C-terminal 24 amino acids of integrin ß1D including an appending N-terminal cysteine (CQENPIYKS-PINNFKNPNYGRKAGL) coupled to keyhole limpet hemocyanin. Database link: **P05556** Run BLAST with Run BLAST with
Epitope	Cytoplasmic domain, C-terminal. Isoform of the Integrin b1 subunit present in cardiac and skeletal muscle.
Positive control	WB: Human heart, tongue and skeletal muscle tissue lysates. IHC: Human myocardium.
General notes	The integrins, finally, form a large family of glycosylated transmembrane proteins that act as dimers of an alpha and a beta subunit in interconnecting the cytoskeleton and the extracellular matrix. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.09% Sodium azide Constituent: PBS
Purity	Protein G purified
Primary antibody notes	The integrins, finally, form a large family of glycosylated transmembrane proteins that act as dimers of an alpha and a beta subunit in interconnecting the cytoskeleton and the extracellular matrix.
Clonality	Monoclonal
Clone number	2B1
Myeloma	Sp2/0
Isotype	IgG1
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab8991 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

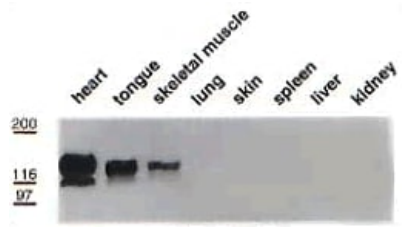
Application	Abreviews	Notes
WB		1/100 - 1/1000.
IHC		1/25 - 1/200.

Target

Relevance Integrin beta 1, also known as CD29, is a 130 kDa transmembrane glycoprotein that forms noncovalent complexes with various Integrin alpha subunits (including alpha 1, alpha 2, alpha 3, alpha 4, alpha 5, and alpha 6, also known as CD49a, CD49b, CD49c, CD49d, CD49e, and CD49f, respectively) to form the functional receptors that bind to specific extracellular matrix proteins. Integrin receptors are involved in the regulation of a variety of important biological functions, including embryonic development, wound repair, hemostasis, and prevention of programmed cell death. They are also implicated in abnormal pathological states such as tumor directed angiogenesis, tumor cell growth, and metastasis. These heterodimeric receptors bridge the cytoplasmic actin cytoskeleton with proteins present in the extracellular matrix and/or on adjacent cells. The clustering of integrins on a cell surface leads to the formation of focal contacts. Interactions between integrins and the extracellular matrix lead to activation of signal transduction pathways and regulation of gene expression. The isoform beta-1D of Integrin 1, is expressed specifically in striated muscle (skeletal and cardiac muscle).

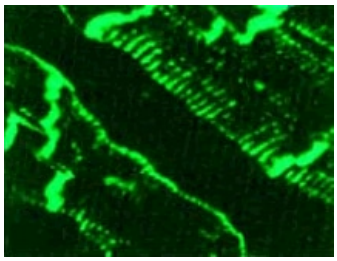
Cellular localization Cell Membrane

Images



Western blot - Anti-Integrin beta 1d antibody [2B1] (ab8991)

Western blotting of beta1D integrin showing its muscle cell specific expression pattern.



Immunohistochemistry - Anti-Integrin beta 1d antibody [2B1] (ab8991)

Immunohistochemistry (Immunofluorescence) staining of Human myocardium for beta1D integrin.

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