abcam

Product datasheet

Anti-Integrin beta 4 antibody [439-9B] ab110167

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Overview

Product name	Anti-Integrin beta 4 antibody [439-9B]
Description	Rat monoclonal [439-9B] to Integrin beta 4
Host species	Rat
Specificity	Recognizes human Integrin beta-4, a 202 kDa subunit that associates with integrin alpha 6 (CD49f), thereby forming the laminin receptor. Multiple splice variants have been identified. It is used as a surface staining antibody.
Tested applications	**Suitable for:** IHC-P, Flow Cyt
Species reactivity	**Reacts with:** Human
Immunogen	The details of the immunogen for this antibody are not available.
Positive control	Human Pancreas and Human Placenta tissues, A549 cell line
General notes	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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.09% Sodium azide Constituent: 99% PBS
Purity	Affinity purified
Clonality	Monoclonal
Clone number	439-9B
Isotype	IgG2b

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab110167 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
IHC-P		Use a concentration of 20 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
Flow Cyt		Use 1µg for 10^{5-8} cells. in 100 µl **ab18536** - Rat monoclonal IgG2b, is suitable for use as an

Target

Function Integrin alpha-6/beta-4 is a receptor for laminin. It plays a critical structural role in the hemidesmosome of epithelial cells.

Tissue specificity Integrin alpha-6/beta-4 is predominantly expressed by epithelia. Isoform beta-4D is also expressed in colon and placenta. Isoform beta-4E is also expressed in epidermis, lung, duodenum, heart, spleen and stomach.

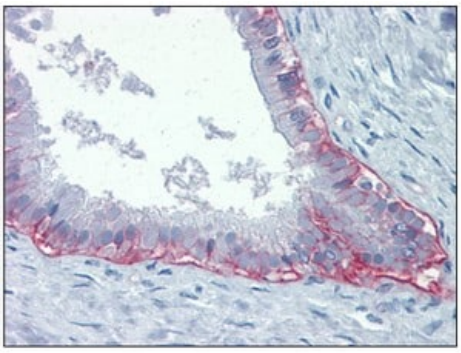
Involvement in disease Defects in ITGB4 are a cause of epidermolysis bullosa letalis with pyloric atresia (EB-PA) [MIM:226730]; also known as junctional epidermolysis bullosa with pyloric atresia (PA-JEB) or aplasia cutis congenita with gastrointestinal atresia. EB-PA is an autosomal recessive, frequently lethal, epidermolysis bullosa with variable involvement of skin, nails, mucosa, and with variable effects on the digestive system. It is characterized by mucocutaneous fragility, aplasia cutis congenita, and gastrointestinal atresia, which most commonly affects the pylorus. Pyloric atresia is a primary manifestation rather than a scarring process secondary to epidermolysis bullosa. Defects in ITGB4 are a cause of generalized atrophic benign epidermolysis bullosa (GABEB) [MIM:226650]. GABEB is a non-lethal, adult form of junctional epidermolysis bullosa characterized by life-long blistering of the skin, associated with hair and tooth abnormalities.

Sequence similarities Belongs to the integrin beta chain family.
Contains 1 Calx-beta domain.
Contains 4 fibronectin type-III domains.
Contains 1 PSI domain.
Contains 1 VWFA domain.

Domain The fibronectin type-III-like domains bind BPAG1 and plectin and probably also recruit BP230.

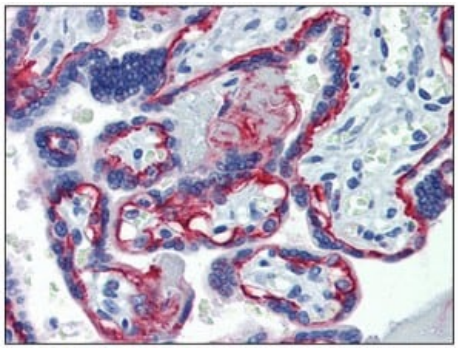
Cellular localization Membrane.

Images



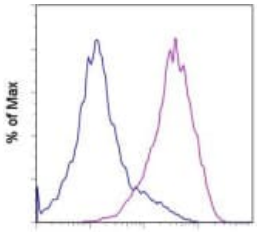
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin beta 4 antibody [439-9B] (ab110167)

ab110167 at 20 µg/ml staining integrin beta 4 in Formalin-Fixed, Paraffin-Embedded Human Pancreas(**ab29816**). Sections were incubated with a biotinylated secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin beta 4 antibody [439-9B] (ab110167)

ab110167 at 20 µg/ml staining integrin beta 4 in Formalin-Fixed, Paraffin-Embedded Human Placenta. Sections were incubated with a biotinylated secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen.



Flow Cytometry - Anti-Integrin beta 4 antibody [439-9B] (ab110167)

Staining of the A549 cell line with 0.5 ug of Rat IgG2b Isotype Control (**ab98984**) (blue histogram) or 0.5 ug of **ab110167** (purple histogram) followed by Biotin Anti-Rat IgG and Sav-PE. Total viable cells were used for analysis.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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