

Product datasheet

Anti-Integrin beta 4 antibody [EPR17517] ab182120

KO VALIDATED Recombinant RabMAB

★★★★★ [3 Abreviews](#) [22 References](#) [12 Images](#)

Overview

Product name	Anti-Integrin beta 4 antibody [EPR17517]
Description	Rabbit monoclonal [EPR17517] to Integrin beta 4
Host species	Rabbit
Tested applications	Suitable for: IHC-P, WB
Species reactivity	Reacts with: Mouse, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Mouse spleen, kidney, pancreas, ovary and skin lysates; Human skin and pancreas lysates; BxPC-3 and SW480 whole cell lysates. IHC-P: Human colon, Human cervical carcinoma and mouse pancreas tissues.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAB[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAB[®] patents.</p>

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	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 0.05% BSA, 40% Glycerol
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR17517
Isotype	IgG

Applications

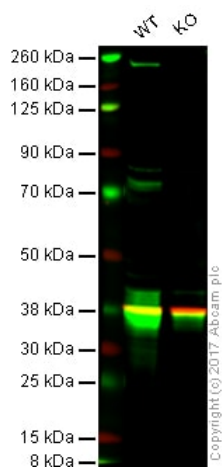
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab182120 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★★★★★ (2)	1/250. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Detects a band of approximately 210 kDa (predicted molecular weight: 202 kDa).

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



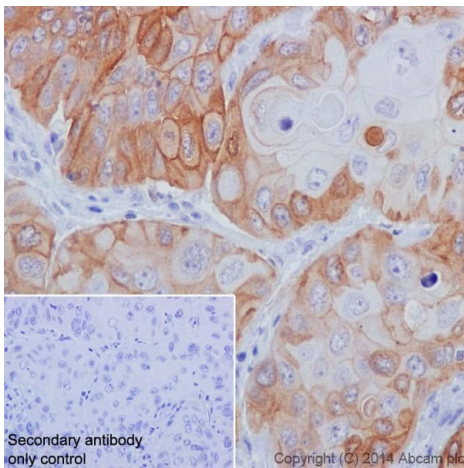
Western blot - Anti-Integrin beta 4 antibody [EPR17517] (ab182120)

Lane 1: Wild-type HAP1 whole cell lysate (40 µg)

Lane 2: ITGB4 knockout HAP1 whole cell lysate (40 µg)

Lanes 1 - 2: Merged signal (red and green). Green - ab182120 observed at 240 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab182120 was shown to specifically recognize ITGB4 in wild-type HAP1 cells along with additional cross-reactive bands. No band was observed when ITGB4 knockout samples were used. Wild-type and ITGB4 knockout samples were subjected to SDS-PAGE. Ab182120 and **ab8245** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/30,000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20,000 dilution for 1 hour at room temperature before imaging.

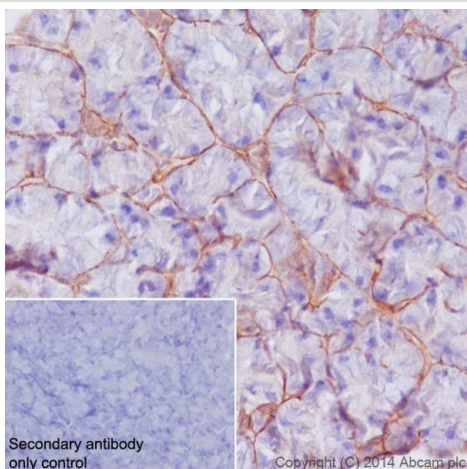


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin beta 4 antibody [EPR17517] (ab182120)

Immunohistochemical analysis of paraffin-embedded Human cervical carcinoma tissue labeling Integrin beta 4 with ab182120 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) secondary antibody at 1/500 dilution. Membrane and cytoplasm staining on Human cervical carcinoma is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

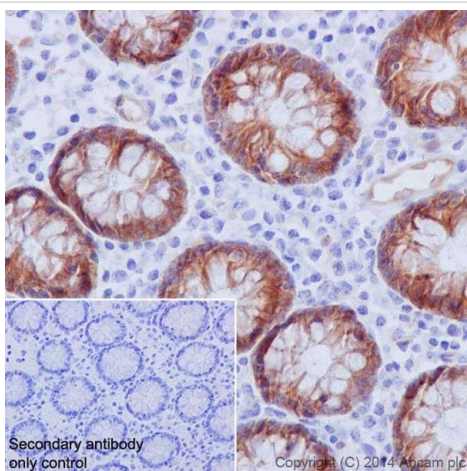


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin beta 4 antibody [EPR17517] (ab182120)

Immunohistochemical analysis of paraffin-embedded mouse pancreas tissue labeling Integrin beta 4 with ab182120 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) secondary antibody at 1/500 dilution. Cell junction staining on mouse pancreatic acinus is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

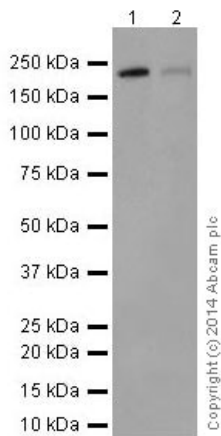


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin beta 4 antibody [EPR17517] (ab182120)

Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling Integrin beta 4 with ab182120 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) secondary antibody at 1/500 dilution. Membrane and cytoplasm staining on Human colon epithelium is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-Integrin beta 4 antibody [EPR17517] (ab182120)

All lanes : Anti-Integrin beta 4 antibody [EPR17517] (ab182120) at 1/1000 dilution

Lane 1 : Mouse spleen lysate

Lane 2 : Mouse kidney lysate

Lysates/proteins at 10 µg per lane.

Secondary

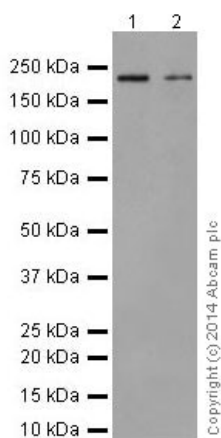
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 202 kDa

Observed band size: 210 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDm/TBST.



Western blot - Anti-Integrin beta 4 antibody [EPR17517] (ab182120)

All lanes : Anti-Integrin beta 4 antibody [EPR17517] (ab182120) at 1/1000 dilution

Lane 1 : Mouse pancreas lysate

Lane 2 : Mouse ovary lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 202 kDa

Observed band size: 210 kDa

Exposure time: 15 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

Anti-Integrin beta 4 antibody [EPR17517] (ab182120) at 1/20000 dilution + Mouse skin lysate at 10 µg

Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 202 kDa

Observed band size: 210 kDa

Exposure time: 15 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

Anti-Integrin beta 4 antibody [EPR17517] (ab182120) at 1/20000 dilution + Human skin lysate at 10 µg

Secondary

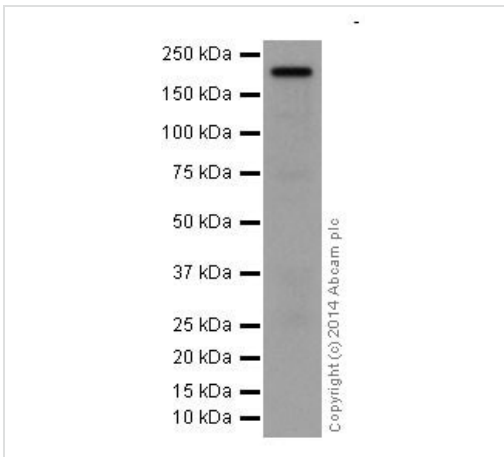
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 202 kDa

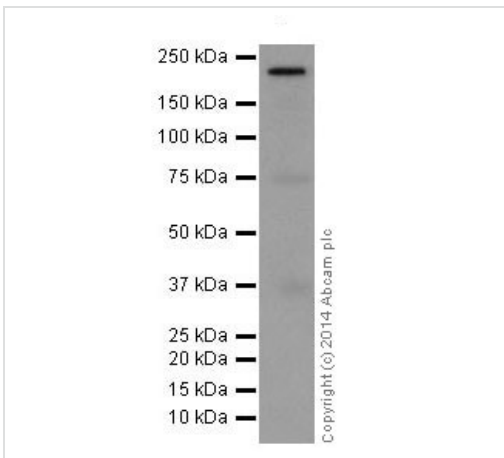
Observed band size: 210 kDa

Exposure time: 30 seconds

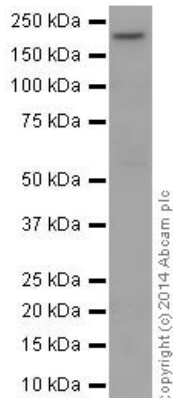
Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-Integrin beta 4 antibody [EPR17517] (ab182120)



Western blot - Anti-Integrin beta 4 antibody [EPR17517] (ab182120)



Western blot - Anti-Integrin beta 4 antibody
[EPR17517] (ab182120)

Anti-Integrin beta 4 antibody [EPR17517] (ab182120) at 1/1000 dilution + Human pancreas lysate at 10 μ g

Secondary

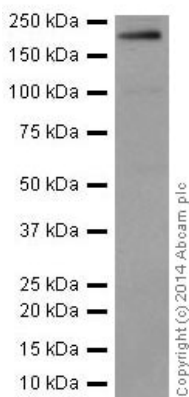
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 202 kDa

Observed band size: 210 kDa

Exposure time: 30 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-Integrin beta 4 antibody
[EPR17517] (ab182120)

Anti-Integrin beta 4 antibody [EPR17517] (ab182120) at 1/1000 dilution + BxPC-3 (Human pancreas adenocarcinoma cells) whole cell lysate at 10 μ g

Secondary

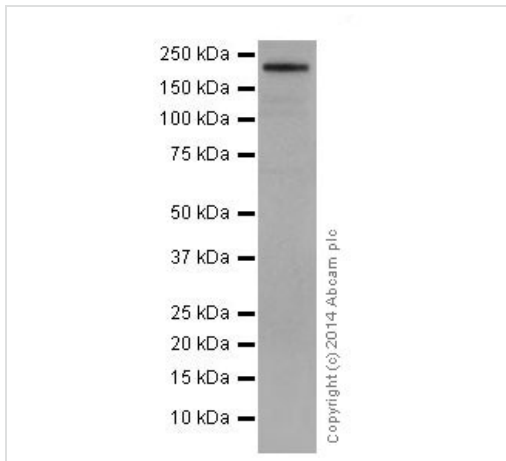
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 202 kDa

Observed band size: 210 kDa

Exposure time: 1 second

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-Integrin beta 4 antibody [EPR17517] (ab182120)

Anti-Integrin beta 4 antibody [EPR17517] (ab182120) at 1/5000 dilution + SW480 (Human colon adenocarcinoma cell line) whole cell lysate at 10 µg

Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution





Predicted band size: 202 kDa

Observed band size: 210 kDa

Exposure time: 5 seconds

Blocking/Dilution buffer: 5% NFDm/TBST.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-Integrin beta 4 antibody [EPR17517] (ab182120)

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

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