

Anti-Integrin alpha 2 antibody [EPR17338] - BSA and Azide free ab271936

KO VALIDATED Recombinant RabMAb

★★★★★ [1 Abreviews](#) [1 References](#) [10 Images](#)

Overview

Product name	Anti-Integrin alpha 2 antibody [EPR17338] - BSA and Azide free
Description	Rabbit monoclonal [EPR17338] to Integrin alpha 2 - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), ICC/IF, WB, IHC-P, IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human colon, human squamous cell carcinoma of cervix, mouse kidney and rat colon tissues. ICC/IF: Wild-type HAP1, PC-3 and MCF7 cells. Flow Cyt (intra): A549 cells. IP: T-47D whole cell extract.
General notes	<p>ab271936 is the carrier-free version of ab181548.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</p> <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</p>

monoclonal antibodies. For details on our patents, please refer to [RabMAb® patents](#).

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR17338
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab271936 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
Flow Cyt (Intra)		Use at an assay dependent concentration. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		Use at an assay dependent concentration. This product gave a positive signal in wild-type HAP1 cells fixed with 4% formaldehyde (10 min) and 100% methanol (5 min).
WB		Use at an assay dependent concentration. Predicted molecular weight: 129 kDa.
IHC-P	★★★★★ (1)	Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.

Target

Function	Integrin alpha-2/beta-1 is a receptor for laminin, collagen, collagen C-propeptides, fibronectin and E-cadherin. It recognizes the proline-hydroxylated sequence G-F-P-G-E-R in collagen. It is responsible for adhesion of platelets and other cells to collagens, modulation of collagen and collagenase gene expression, force generation and organization of newly synthesized extracellular matrix.
Sequence similarities	Belongs to the integrin alpha chain family. Contains 7 FG-GAP repeats.

Contains 1 VWFA domain.

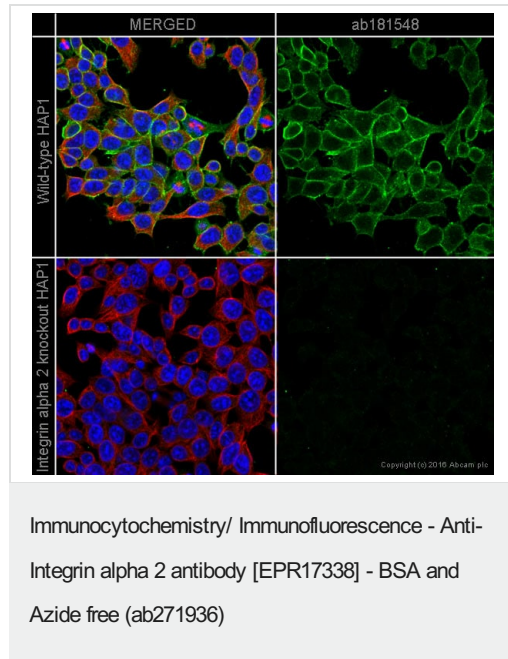
Domain

The integrin I-domain (insert) is a VWFA domain. Integrins with I-domains do not undergo protease cleavage.

Cellular localization

Membrane.

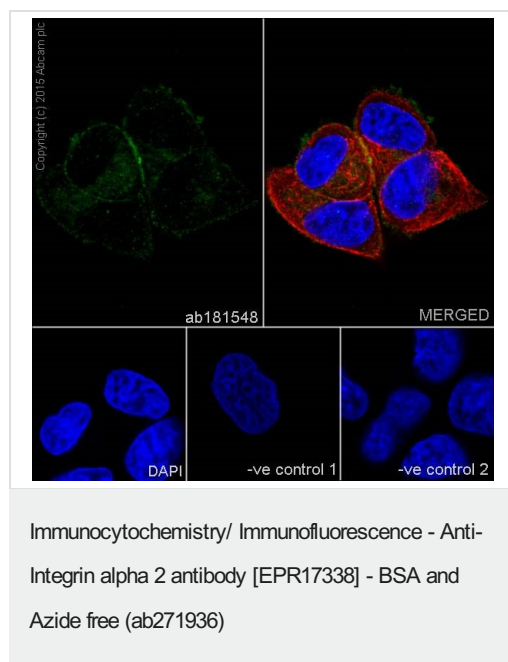
Images



ab181548 staining Integrin $\alpha 2$ in wild-type HAP1 cells (top panel) and Integrin $\alpha 2$ knockout HAP1 cells (bottom panel). The cells were fixed with 100% methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with **ab181548** at 1 μ g/ml concentration and **ab7291** at 1 μ g/ml concentration overnight at +4°C, followed by a further incubation at room temperature for 1h with a goat secondary antibody to Rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 μ g/ml (shown in green) and a goat secondary antibody to Mouse IgG (Alexa Fluor® 594) (**ab150120**) at 2 μ g/ml (shown in pseudo-color red). Nuclear DNA was labelled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab181548**).



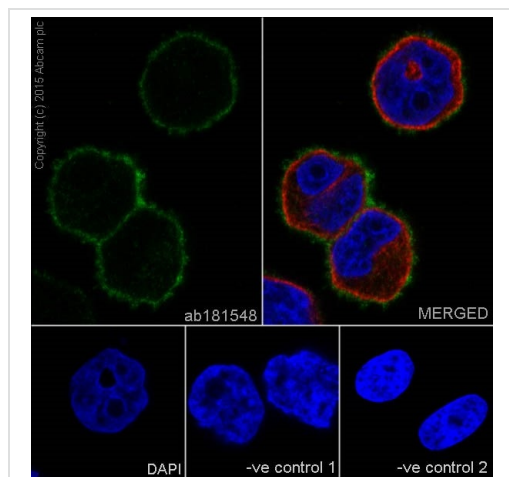
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized MCF7 (Human breast adenocarcinoma cell line) cells labeling integrin alpha 2 with **ab181548** at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/400 dilution (green). Confocal image showing membrane staining on MCF7 cell line is observed. The nuclear counterstain is DAPI (blue). Tubulin is detected with **ab7291** (anti-Tubulin mouse mAb) at 1/500 dilution and **ab150120** (goat anti-mouse AlexaFluor®594 secondary antibody) at 1/500 dilution (red).

The negative controls are as follows:-

-ve control 1 - **ab181548** at 1/100 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
-ve control 2. - **ab7291** (anti-Tubulin mouse mAb) at 1/500 dilution followed by **ab150077** (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/400 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and

sodium azide (**ab181548**).



Immunocytochemistry/ Immunofluorescence - Anti-Integrin alpha 2 antibody [EPR17338] - BSA and Azide free (ab271936)

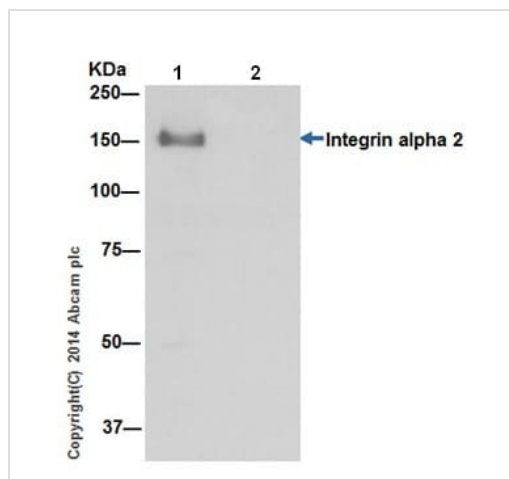
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized PC-3 (Human prostate adenocarcinoma cell line) cells labeling integrin alpha 2 with **ab181548** at 1/100 dilution, followed by Goat anti-rabbit I Alexa Fluor® 488 (IgG) (**ab150077**) secondary antibody at 1/400 dilution (green). Confocal image showing membrane and weakly cytoplasmic staining on PC-3 cell line is observed. The nuclear counterstain is DAPI (blue). Tubulin is detected with **ab7291** (anti-Tubulin mouse mAb) at 1/500 dilution and **ab150120** (goat anti-mouse AlexaFluor®594 secondary antibody) at 1/500 dilution (red).

The negative controls are as follows:-

-ve control 1 - **ab181548** at 1/100 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.

-ve control 2. - **ab7291** (anti-Tubulin mouse mAb) at 1/500 dilution followed by **ab150077** (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/400 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab181548**).

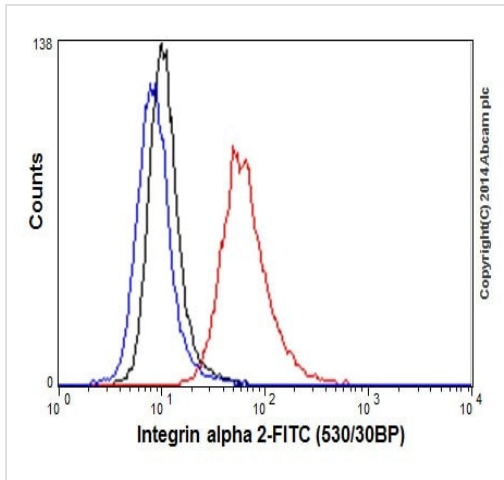


Immunoprecipitation - Anti-Integrin alpha 2 antibody [EPR17338] - BSA and Azide free (ab271936)

Integrin alpha 2 was immunoprecipitated from 1mg of T-47D (Human ductal breast epithelial tumor cell line) whole cell extract with **ab181548** at 1/150 dilution. Western blot was performed using **ab181548** at 1/20,000 dilution. Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG, was used as secondary antibody at 1/1500 dilution. Lane 1: T-47D whole cell extract Lane 2: PBS instead of T-47D whole cell extract.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

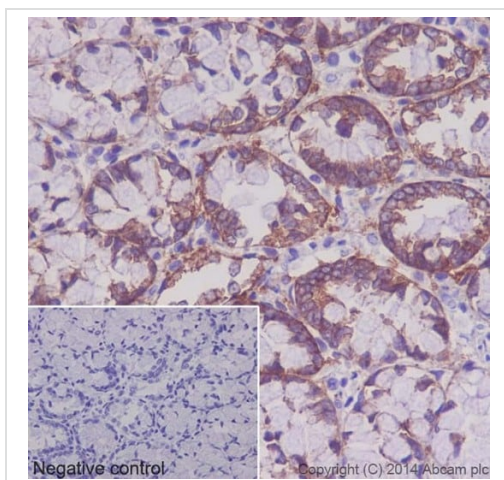
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab181548**).



Flow Cytometry (Intracellular) - Anti-Integrin alpha 2 antibody [EPR17338] - BSA and Azide free (ab271936)

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed A549 (Human lung carcinoma) cells labeling integrin alpha 2 with **ab181549** at 1/160 dilution (red) compared with a rabbit monoclonal IgG isotype control (black) and a unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (FITC) at 1/150 dilution was used as the secondary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab181548**).



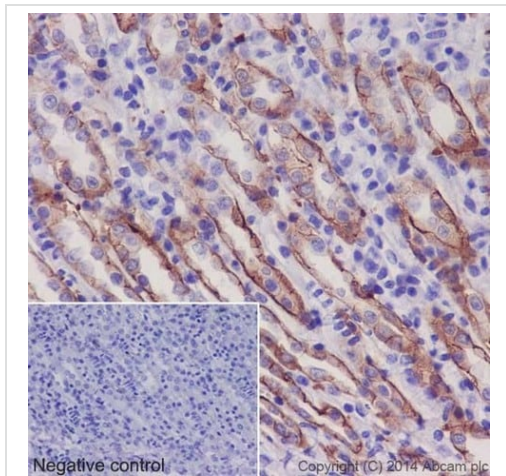
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin alpha 2 antibody [EPR17338] - BSA and Azide free (ab271936)

Immunohistochemical analysis of paraffin-embedded Rat colon tissue labeling Integrin alpha 2 with **ab181548** at 1/500 dilution followed by Goat **Anti-Rabbit HRP** (IgG H&L) (**ab97051**) at 1/500 dilution. Membrane staining on epithelial cells of Rat colon tissue is observed. Counter stained with Hematoxylin.

Negative control: Used PBS instead of primary antibody.

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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab181548**).



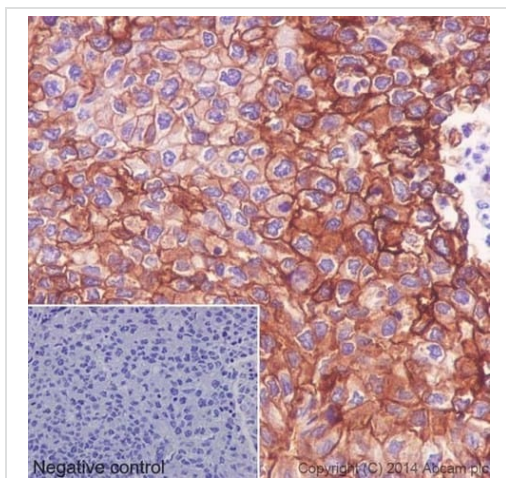
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin alpha 2 antibody [EPR17338] - BSA and Azide free (ab271936)

Immunohistochemical analysis of paraffin-embedded Mouse kidney tissue labeling Integrin alpha 2 with **ab181548** at 1/500 dilution followed by Goat **Anti-Rabbit HRP** (IgG H&L) (**ab97051**) at 1/500 dilution. Membrane and weak cytoplasmic staining on epithelial cells of Mouse kidney tubule is observed. Counter stained with Hematoxylin.

Negative control: Used PBS instead of primary antibody.

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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab181548**).



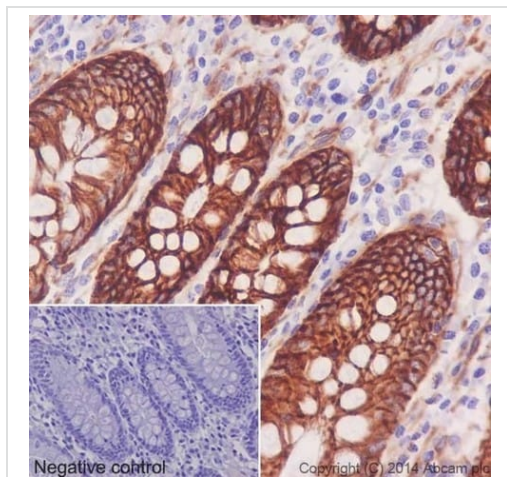
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin alpha 2 antibody [EPR17338] - BSA and Azide free (ab271936)

Immunohistochemical analysis of paraffin-embedded Human squamous cell carcinoma of cervix tissue labeling Integrin alpha 2 with **ab181548** at 1/500 dilution followed by Goat **Anti-Rabbit HRP** (IgG H&L) (**ab97051**) at 1/500 dilution. Membrane and weak cytoplasmic staining on epithelial cells of human squamous cell carcinoma of cervix tissue is observed. Counter stained with Hematoxylin.

Negative control: Used PBS instead of primary antibody.

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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab181548**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin alpha 2 antibody [EPR17338] - BSA and Azide free (ab271936)

Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling Integrin alpha 2 with **ab181548** at 1/500 dilution followed by Goat **Anti-Rabbit HRP** (IgG H&L) (**ab97051**) at 1/500 dilution. Membrane and weak cytoplasmic staining on epithelial cells of human colon is observed. Counter stained with Hematoxylin.

Negative control: Used PBS instead of primary antibody.

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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab181548**).

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Integrin alpha 2 antibody [EPR17338] - BSA and Azide free (ab271936)

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