

## Product datasheet

### Anti-Integrin alpha 6 antibody [MP 4F10] ab20142

★★★★★ [8 Abreviews](#) [23 References](#) [2 Images](#)

#### Overview

<b>Product name</b>	Anti-Integrin alpha 6 antibody [MP 4F10]
<b>Description</b>	Mouse monoclonal [MP 4F10] to Integrin alpha 6
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Tissue, cells or virus corresponding to Integrin alpha 6. SW1222 human colorectal cell line.
<b>Positive control</b>	Human lymph node tissue.
<b>General notes</b>	<p>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.</p> <p>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&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	Preservative: 0.02% Sodium azide Constituent: 99.98% PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	MP 4F10
<b>Myeloma</b>	P3-NS1/1-Ag4-1
<b>Isotype</b>	IgG2b
<b>Light chain type</b>	unknown

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab20142 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		Use 1 µg for 10 <sup>6</sup> cells. (paraformaldehyde or methanol fixed cells) <b>ab170192</b> - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★★ (2)	Use a concentration of 1 µg/ml.

## Target

### Function

Integrin alpha-6/beta-1 is a receptor for laminin on platelets. Integrin alpha-6/beta-4 is a receptor for laminin in epithelial cells and it plays a critical structural role in the hemidesmosome (By similarity). ITGA6:ITGB4 binds to NRG1 (via EGF domain) and this binding is essential for NRG1-ERBB signaling (PubMed:20682778). ITGA6:ITGB4 binds to IGF1 and this binding is essential for IGF1 signaling (PubMed:22351760).

### Tissue specificity

Integrin alpha-6/beta-4 is predominantly expressed by epithelia. Isoforms containing segment X1 are ubiquitously expressed. Isoforms containing segment X1X2 are expressed in heart, kidney, placenta, colon, duodenum, myoblasts and myotubes, and in a limited number of cell lines; they are always coexpressed with the ubiquitous isoform containing segment X1. In some tissues (e.g. Salivary gland), isoforms containing cytoplasmic segment A and isoforms containing segment B are detected while in others, only isoforms containing one cytoplasmic segment are found (segment A in epidermis and segment B in kidney).

### Involvement in disease

Epidermolysis bullosa letalis, with pyloric atresia

### Sequence similarities

Belongs to the integrin alpha chain family.  
Contains 7 FG-GAP repeats.

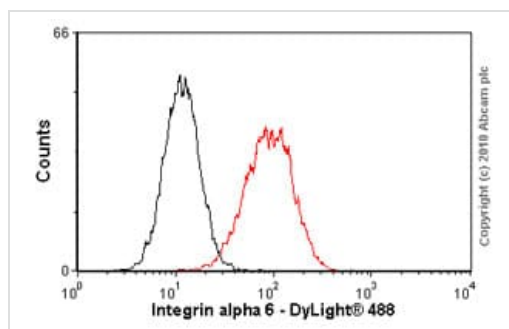
### Post-translational modifications

Isoforms containing segment A, but not segment B, are the major targets for PMA-induced phosphorylation. Phosphorylation occurs on 'Ser-1103' of isoform alpha-6X1X2A. Phosphorylation is not required for the induction of integrin alpha-6A/beta-1 high affinity but may reduce the affinity for ligand.  
In invasive prostate cancer ITGA6 undergoes PLAU-mediated cleavage at residues Arg-634-635-Arg in a time-dependent manner enhancing cell invasion and migration in vitro.  
Palmitoylation by DHHC3 enhances stability and cell surface expression.

### Cellular localization

Cell membrane. Cell membrane.

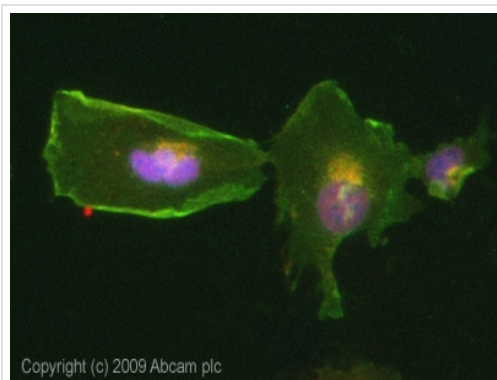
## Images



Flow Cytometry - Anti-Integrin alpha 6 antibody [MP 4F10] (ab20142)

Overlay histogram showing HT1080 cells stained with 6 cells) for 30 min at 22°C. The secondary antibody used was a goat **anti-mouse DyLight® 488** (IgG; H+L) (**ab96879**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2b [PLPV219] (**ab91366**, 2µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HT1080 cells fixed with methanol (5 min) used under the same conditions.

Please note that Abcam does not have data for use of this antibody on non-fixed cells. We welcome any customer feedback.



Immunocytochemistry/ Immunofluorescence - Anti-Integrin alpha 6 antibody [MP 4F10] (ab20142)

ICC/IF image of ab150035). The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal Goat serum / 0.3M (**ab7481**) glycine (**ab120050**) in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab150113) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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

### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

## Terms and conditions

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors