

## Product datasheet

### Anti-CD41 antibody [EPR4330] ab134131

Recombinant RabMAb

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#### Overview

Product name	Anti-CD41 antibody [EPR4330]
Description	Rabbit monoclonal [EPR4330] to CD41
Host species	Rabbit
Specificity	Mouse reactivity is only guaranteed for IHC-P.
Tested applications	<b>Suitable for:</b> ICC/IF, WB, IHC-P <b>Unsuitable for:</b> IP
Species reactivity	<b>Reacts with:</b> Mouse, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Human platelet, fetal liver and placenta lysates; Human spleen tissue
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.</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. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% Tris glycine, 0.88% Sodium chloride, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>

<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR4330
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab134131 in the following tested applications.

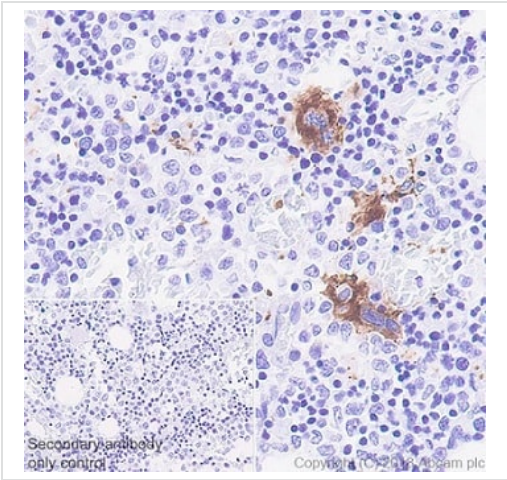
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
WB		1/1000 - 1/10000. Predicted molecular weight: 113 kDa.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

**Application notes** Is unsuitable for IP.

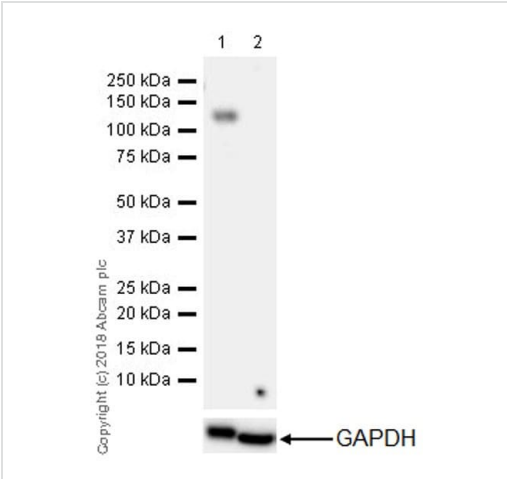
## Target

<b>Function</b>	Integrin alpha-IIb/beta-3 is a receptor for fibronectin, fibrinogen, plasminogen, prothrombin, thrombospondin and vitronectin. It recognizes the sequence R-G-D in a wide array of ligands. It recognizes the sequence H-H-L-G-G-G-A-K-Q-A-G-D-V in fibrinogen gamma chain. Following activation integrin alpha-IIb/beta-3 brings about platelet/platelet interaction through binding of soluble fibrinogen. This step leads to rapid platelet aggregation which physically plugs ruptured endothelial cell surface.
<b>Tissue specificity</b>	Isoform 1 and isoform 2 were identified in platelets and megakaryocytes, but not in reticulocytes or in Jurkat and U937 white blood cell line. Isoform 3 is expressed by leukemia, prostate adenocarcinoma and melanoma cells but not by platelets or normal prostate or breast epithelial cells.
<b>Involvement in disease</b>	Defects in ITGA2B are a cause of Glanzmann thrombasthenia (GT) [MIM:273800]; also known as thrombasthenia of Glanzmann and Naegeli. GT is the most common inherited disease of platelets. It is an autosomal recessive disorder characterized by mucocutaneous bleeding of mild-to-moderate severity and the inability of this integrin to recognize macromolecular or synthetic peptide ligands. GT has been classified clinically into types I and II. In type I, platelets show absence of the glycoprotein IIb/beta-3 complexes at their surface and lack fibrinogen and clot retraction capability. In type II, the platelets express the glycoprotein IIb/beta-3 complex at reduced levels (5-20% controls), have detectable amounts of fibrinogen, and have low or moderate clot retraction capability. The platelets of GT 'variants' have normal or near normal (60-100%) expression of dysfunctional receptors.
<b>Sequence similarities</b>	Belongs to the integrin alpha chain family. Contains 7 FG-GAP repeats.
<b>Cellular localization</b>	Membrane.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD41 antibody [EPR4330] (ab134131)

Ab134131 staining CD41 in paraffin embedded Human bone marrow tissue sections by Immunohistochemistry. Heat mediated antigen retrieval was performed using [ab93684](#) (Tris/EDTA buffer, pH 9.0). Samples were incubated with primary antibody at 1/2000 dilution (0.30 µg/ml). A ready to use Goat Anti-rabbit IgG H&L (HRP) was used as the secondary antibody. Hematoxylin was used as a counterstain. Cytoplasmic staining in megakaryocytes of human bone marrow (PMID: 27128503; PMID: 23667055).



Western blot - Anti-CD41 antibody [EPR4330] (ab134131)

**All lanes :** Anti-CD41 antibody [EPR4330] (ab134131) at 0.6 µg/ml

**Lane 1 :** HEL (human Erythroleukemia erythroblast) whole cell lysate

**Lane 2 :** K-562 (human chronic myelogenous leukemia lymphoblast) whole cell lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

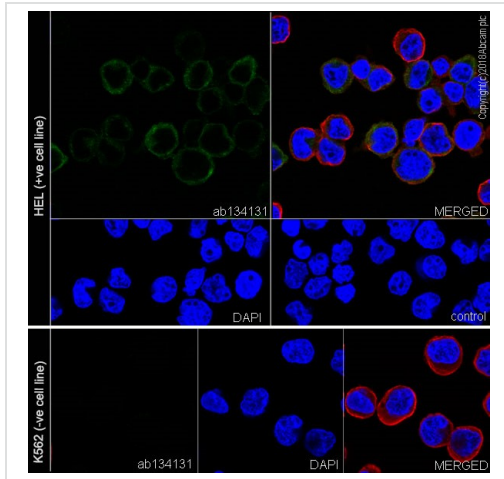
**All lanes :** VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) at 1/1000 dilution

**Predicted band size:** 113 kDa

**Exposure time:** 3 minutes

Blocking and diluting buffer: 5% NFDM/TBST.

**Negative control:** K-562 (PMID 2458779)

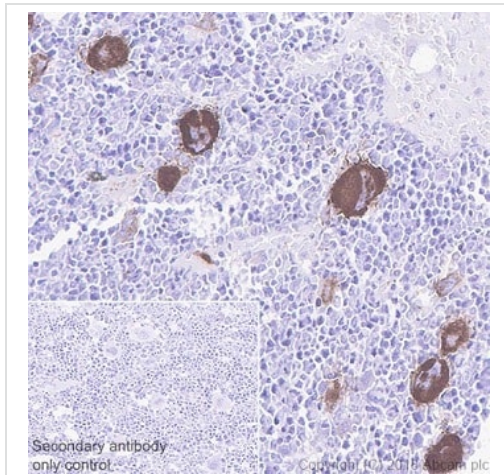


Immunocytochemistry/ Immunofluorescence - Anti-CD41 antibody [EPR4330] (ab134131)

Ab134131 staining CD41 in HEL (human Erythroleukemia erythroblast) cells by ICC/IF

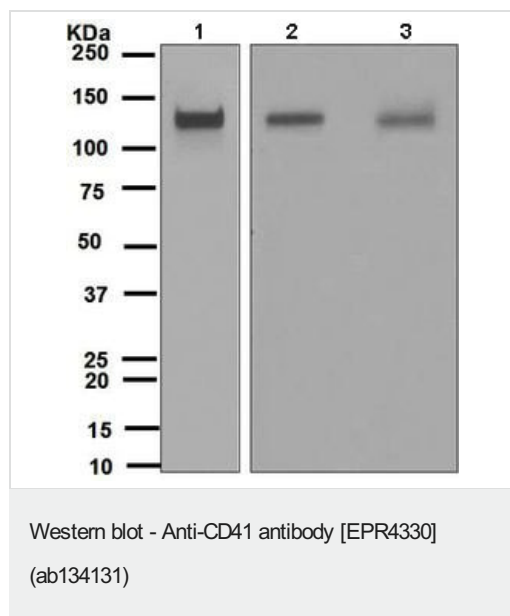
(Immunocytochemistry/Immunofluorescence. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% TritonX-100. Samples were incubated with primary antibody at 1/100 dilution (6 µg/ml). An AlexaFluor® 488 Goat anti-Rabbit (**ab150077**) was used as the secondary antibody at 1/1000 dilution (2 µg/ml). Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) , **ab195889** was used a counterstain antibody at 1/200 dilution (2.5 µg/ml). DAPI was used as a nuclear counterstain. Confocal image showing membranous staining in HEL cell line.

Negative control: K562( PMID 2458779)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD41 antibody [EPR4330] (ab134131)

Ab134131 staining CD41 paraffin embedded Mouse bone marrow tissue sections by Immunohistochemistry. Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Samples were incubated with primary antibody at 1/500 dilution (1.21 µg/ml). A ready to use Goat Anti-rabbit IgG H&L (HRP) was used as the secondary antibody. Hematoxylin was used as a counterstain. Cytoplasmic staining in megakaryocytes of mouse bone marrow (PMID: 27128503).



**All lanes :** Anti-CD41 antibody [EPR4330] (ab134131) at 1/1000 dilution

**Lane 1 :** Human platelet lysate

**Lane 2 :** Human fetal liver lysate

**Lane 3 :** Human placenta lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes :** HRP labelled goat anti rabbit at 1/2000 dilution

**Predicted band size:** 113 kDa

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-CD41 antibody [EPR4330] (ab134131)

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

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