

## Product datasheet

# Anti-CD41 antibody [EPR4330] ab134131

Recombinant RabMAb

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### Overview

<b>Product name</b>	Anti-CD41 antibody [EPR4330]
<b>Description</b>	Rabbit monoclonal [EPR4330] to CD41
<b>Host species</b>	Rabbit
<b>Specificity</b>	Mouse reactivity is only guaranteed for IHC-P.
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, WB, IHC-P <b>Unsuitable for:</b> IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Synthetic peptide within Human CD41 aa 50-150 (extracellular). The exact sequence is proprietary. Synthetic peptide corresponding to residues in the extracellular domain in Human CD41. Database link: <a href="#">P08514</a>
<b>Positive control</b>	Human platelet, fetal liver and placenta lysates; Human spleen tissue
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <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> For more information <a href="#">see here</a> . 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> .  Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

### 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. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide

Constituents: 59% Tris glycine, 0.88% Sodium chloride, 40% Glycerol (glycerin, glycerine), 0.05% BSA

<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

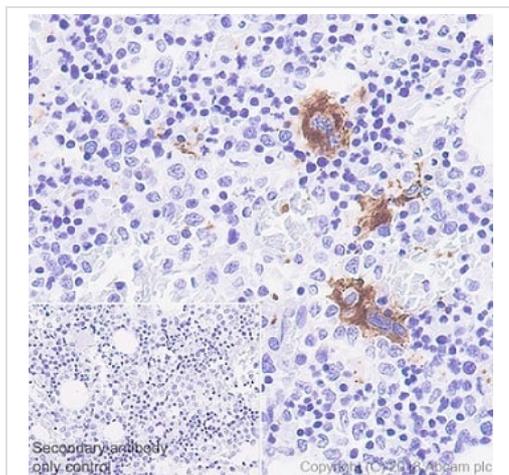
**Function** Integrin alpha-IIb/beta-3 is a receptor for fibronectin, fibrinogen, plasminogen, prothrombin, thrombospondin and vitronectin. It recognizes the sequence R-G-D in a wide array of ligands. It recognizes the sequence H-H-L-G-G-A-K-Q-A-G-D-V in fibrinogen gamma chain. Following activation integrin 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.

**Tissue specificity** 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.

**Involvement in disease** 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.

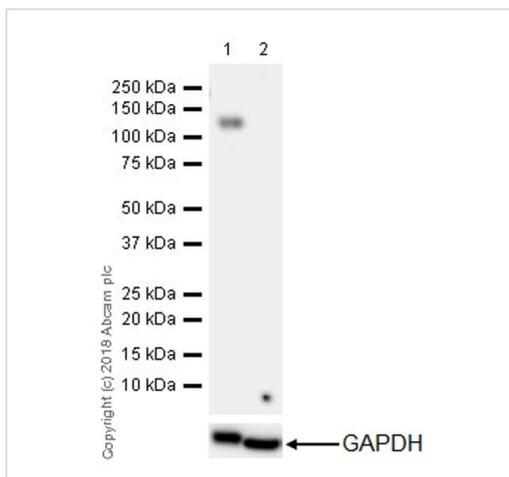
**Sequence similarities** Belongs to the integrin alpha chain family.  
Contains 7 FG-GAP repeats.

## Images



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**

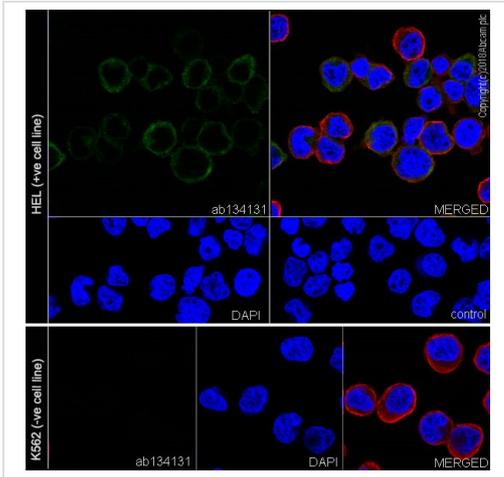
**All lanes** : VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) at 1/1000 dilution

**Predicted band size:** 113 kDa

**Exposure time:** 3 minutes

Blocking and diluting buffer: 5% NFDN/TBST.

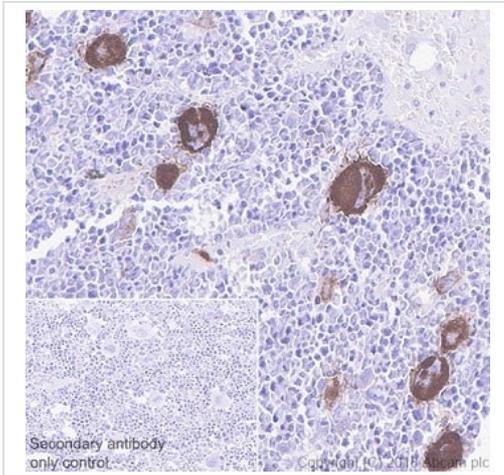
**Negative control:** K-562 (PMID 2458779)



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

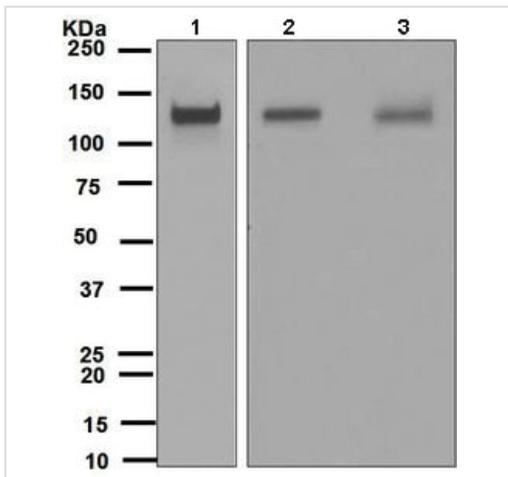
Ab134131 staining CD41 in HEL (human Erythroleukemia erythroblast) cells by ICC/IF (Immunocytochemistry/Immunofluorescence. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% TritonX-100. Samples were incubated with primary antibody at 1/100 dilution (6 µg/ml). An AlexaFluor® 488 Goat 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).



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

**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?

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

Anti-CD41 antibody [EPR4330] (ab134131)

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

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