

# PRODUCT INFORMATION



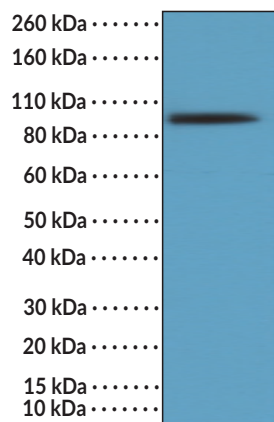
## Integrin $\beta$ 3/CD61 Rabbit Monoclonal Antibody (Clone RM382)

Item No. 32310

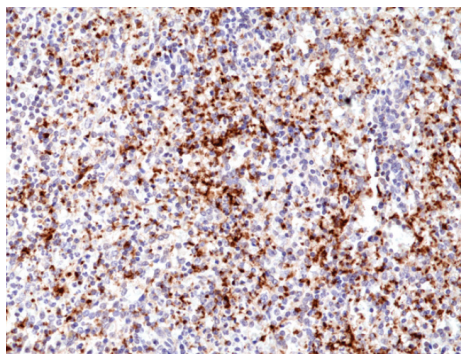
### Overview and Properties

<b>Contents:</b>	This vial contains 100 $\mu$ l of protein A-affinity purified monoclonal antibody.
<b>Synonyms:</b>	GP3A, GPIIIa, Platelet Glycoprotein IIIa
<b>Immunogen:</b>	Peptide corresponding to the internal region of human integrin $\beta$ 3
<b>Cross Reactivity:</b>	(+) Integrin $\beta$ 3
<b>Species Reactivity:</b>	(+) Human
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	$\geq$ 1 year
<b>Storage Buffer:</b>	PBS, with 50% glycerol, 1% BSA, and 0.09% sodium azide
<b>Clone:</b>	RM382
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG
<b>Applications:</b>	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution for IHC is 1:250-1:500 and 1:5,000-1:25,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Images



WB of mouse spleen tissue lysate using Integrin  $\beta$ 3/CD61 Rabbit Monoclonal Antibody (Clone RM382) at a 1:5,000 dilution.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human spleen tissue using Integrin  $\beta$ 3/CD61 Rabbit Monoclonal Antibody (Clone RM382) at a 1:500 dilution.

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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Integrins are cell adhesion receptors that mediate the attachment of cells to the extracellular matrix (ECM) and facilitate cell-cell interactions.<sup>1</sup> The integrin family contains 18  $\alpha$  subunits and eight  $\beta$  subunits that form 24 different heterodimers grouped into familial subgroups based on subunit composition and/or their ligand binding properties. Integrin  $\beta 3$ , also known as CD61, is an integrin subunit that associates with  $\alpha IIB$  or  $\alpha v$  integrin subunits, forming  $\alpha IIB\beta 3$  and  $\alpha v\beta 3$  integrin heterodimers, respectively, which function as receptors for a variety of ECM proteins, including fibrinogen, fibronectin, and collagen and mediate outside-in and inside-out signaling cascades.<sup>2-5</sup> Integrin  $\beta 3$  is composed of a ligand-binding extracellular domain, a single transmembrane segment, and a short cytoplasmic tail.<sup>3</sup> It is expressed by platelets, megakaryocytes, and endothelial cells, as well as monocytes and macrophages. Mutations in *ITGB3* have been found in patients with Glanzmann thrombasthenia, a hemorrhagic disease characterized by defects in platelet function, and *ITGB3* SNPs are associated with increased risk of myocardial infarction.<sup>2</sup> Cayman's Integrin  $\beta 3$ /CD61 Rabbit Monoclonal Antibody (Clone RM382) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

## References

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1. Barczyk, M., Carracedo, S., and Gullberg, D. Integrins. *Cell Tissue Res.* **339(1)**, 269-280 (2010).
2. Jiménez-Marín, A., Yubero, N., Esteso, G., *et al.* Molecular characterization and expression analysis of the gene coding for the porcine  $\beta 3$  integrin subunit (CD61). *Gene* **408(1-2)**, 9-17 (2008).
3. Moreno, A., Lucena, C., Llanes, D., *et al.* Role of CD-61 ( $\beta$ -3 Integrin) glycoprotein in colon carcinoma. *Handbook of Immunohistochemistry and in Situ Hybridization of Human Carcinomas 2*, 227-235 (2002).
4. Mehrdad, M., Trisno, S., and Mofrad, R.K. On the activation of integrin  $\alpha IIB\beta 3$ : Outside-in and inside-out pathways. *Biophysical Journal* **105(6)**, 1304-1315 (2013).

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