

Mouse Anti-HumanITGA2BMonoclonal Antibody

Mouse, Monoclonal (ITGA2B)

Cat. No. DMAB2531MH

Lot. No. (See product label)

PRODUCT INFORMATION

Antigen Description: ITGA2B encodes integrin alpha chain 2b. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. Alpha chain 2b undergoes post-translational cleavage to yield disulfide-linked light and heavy chains that join with beta 3 to form a fibronectin receptor expressed in platelets that plays a crucial role in coagulation.

Isotype: IgG₁

Specificity: Recognizes an epitope on the gpIIb/IIIa complex on the surface membrane of human platelets. The antibody precipitates two bands under non-reducing conditions (Mr 110 kDa and 130 kDa). The CD41 antigen is present on virtually all human platelets and is also found on megakaryocytes. Anti-CD41 will not bind to thrombasthenic platelets. In research studies this antibody has also been shown to bind to selected human solid tumors.

Clone: N149

Host animal: Mouse.

Source: Cell culture

Format: Phyco, Liquid

Purification: Affinity chromatography. This fluorochrome has been covalently conjugated to anti-human CD41 and purified chromatographically to remove unconjugated dye and antibody achieving a fluorochrome/protein (F/P) molar ratio between 0.7-1.3. R-phycoerythrin has an absorbance maximum of 565.5nm with an emission maximum at 578nm. The fluorochrome/protein (F/P) molar ratio of this conjugate is 0.904.

Application: This antibody inhibits platelet aggregation by ADP, sodium arachidonate, collagen, and thrombin (1). We recommend using 1µg to stain 1.0 x 10⁶ cells in flow cytometric applications. Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded. Centrifuge before opening to ensure complete recovery of vial contents.

PACKAGING

Concentration: 100µg/ml (OD280nm)

Buffer: 0.01M PBS, pH7.2 containing 2.0mM EDTA, 1% BSA

Preservative: 0.09% Sodium azide

Storage: Store protected from light at 2-8°C. DO NOT FREEZE.

Warning: This product contains sodium azide, which has been classified as Xn (Harmful) in European Directive 67/548/EEC in the concentration range of 0.1–1.0%. When disposing of this reagent through lead or copper plumbing, flush with copious volumes of water to prevent azide build-up in drains.

ANTIGEN GENE INFORMATION

Gene Name: [ITGA2B integrin, alpha 2b \(platelet glycoprotein IIb of IIb/IIIa complex, antigen CD41\)](#)[integrin, alpha 2b \(platelet glycoprotein IIb of IIb/IIIa complex, antigen CD41\)](#) [*Homo sapiens*]

Official Symbol: ITGA2B

Synonyms: GTA; CD41; GP2B; HPA3; CD41B; GPIIb; ITGA2B; integrin alpha-lib; GPalpha lib; platelet-specific antigen BAK; platelet membrane glycoprotein lib; platelet fibronogen receptor, alpha subunit

GeneID: [3674](#)

mRNA Refseq: [NM_000419](#)

Protein Refseq: [NP_000410](#)

MIM: [607759](#)

UniProt ID: P08514

Chromosome Location: 17q21.32

Pathway: Arf6 signaling events, organism-specific biosystem; Arrhythmogenic right ventricular cardiomyopathy (ARVC), organism-specific biosystem; Axon guidance, organism-specific biosystem; Dilated cardiomyopathy, organism-specific biosystem; ECM-receptor interaction, organism-specific biosystem; Ephrin B reverse signaling, organism-specific biosystem; Focal Adhesion, organism-specific biosystem; Formation of Platelet plug, organism-specific biosystem; GRB2:SOS provides linkage to MAPK signaling for Integrins, organism-specific biosystem

Function: extracellular matrix binding; identical protein binding; receptor activity

REFERENCES

1. Jones, D., et al., (1984), Brit. J. Haem. 57:621.
2. Calvete JJ (1995). "On the structure and function of platelet integrin alpha IIb beta 3, the fibrinogen receptor".*Proc. Soc. Exp. Biol. Med.*208(4): 346–60.