

Product datasheet

Anti-Integrin beta 3 antibody [Y2/51] ab9509

Recombinant

2 Images

Overview

Product name	Anti-Integrin beta 3 antibody [Y2/51]
Description	Mouse monoclonal [Y2/51] to Integrin beta 3
Host species	Mouse
Tested applications	Suitable for: Flow Cyt Unsuitable for: ICC/IF,IHC-P or WB
Species reactivity	Reacts with: Human
Immunogen	Tissue, cells or virus corresponding to Human Integrin beta 3. PHA-stimulated human mononuclear cells.
Positive control	Flow cyto: Human peripheral blood mononuclear cell (PBMC) cells
General notes	This product has been switch from hybridoma to recombinant on 25th March 2024. This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production For more information see here .

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	Y2/51
Myeloma	unknown

Isotype	IgG1
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab9509 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		1/1000.

Application notes Is unsuitable for ICC/IF,IHC-P or WB.

Target

Function Integrin alpha-V/beta-3 is a receptor for cytotactin, fibronectin, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin, vitronectin and von Willebrand factor. Integrin alpha-IIb/beta-3 is a receptor for fibronectin, fibrinogen, plasminogen, prothrombin, thrombospondin and vitronectin. Integrins alpha-IIb/beta-3 and alpha-V/beta-3 recognize the sequence R-G-D in a wide array of ligands. Integrin alpha-IIb/beta-3 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 surface. In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.

Tissue specificity Isoform beta-3A and isoform beta-3C are widely expressed. Isoform beta-3A is specifically expressed in osteoblast cells; isoform beta-3C is specifically expressed in prostate and testis.

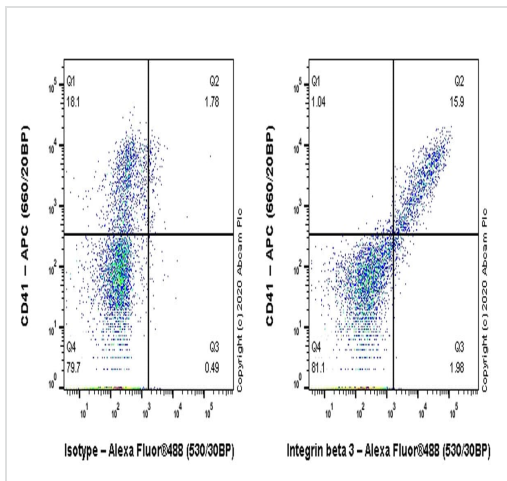
Involvement in disease Defects in ITGB3 are a cause of Glanzmann thrombasthenia (GT) [MIM:273800]; also known as thrombasthenia of Glanzmann and Naegeli. GT is the most common inherited disease of platelets. It is an autosomal recessive disorder characterized by mucocutaneous bleeding of mild-to-moderate 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 beta chain family.
Contains 1 VWFA domain.

Post-translational modifications Phosphorylated on tyrosine residues in response to thrombin-induced platelet aggregation. Probably involved in outside-in signaling. A peptide (AA 740-762) is capable of binding GRB2 only when both Tyr-773 and Tyr-785 are phosphorylated. Phosphorylation of Thr-779 inhibits SHC binding.

Cellular localization Membrane.

Images



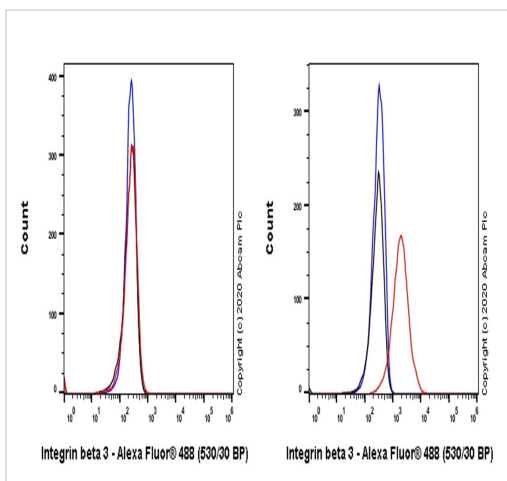
Flow Cytometry - Anti-Integrin beta 3 antibody
[Y2/51] (ab9509)

Flow cytometric analysis of Human peripheral blood mononuclear cell (PBMC) cells labelling Integrin beta 3 with ab9509 at 1/1000 dilution (0.1 ug) / Right compared with a Mouse monoclonal IgG / Left.

Goat anti mouse IgG (Alexa Fluor® 488, **ab150113**) was used as the secondary antibody at 1/2000 dilution.

Cells were stained with mouse IgG or ab9509. Then stained with anti-CD41 conjugated to APC.

Gated on viable cells.



Flow Cytometry - Anti-Integrin beta 3 antibody
[Y2/51] (ab9509)

Flow cytometric analysis of HeLa (Human cervix adenocarcinoma epithelial cell, Left) / HUVEC (Human umbilical vein endothelial cell, Right) cells labelling Integrin beta 3 with ab9509 at 1/1000 dilution (0.1 ug)/Red compared with a Mouse monoclonal IgG / Black isotype control and an unlabelled control (Cell without incubation with primary antibody and secondary antibody / Blue).

Secondary antibody was Goat anti mouse IgG (Alexa Fluor® 488, **ab150113**) used at 1/2000 dilution.

Negative control: HeLa.

Gated on viable cells.

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