

Monoclonal Antibody CD61

PN IM0540 – Purified – Freeze-dried – 0.2 mg – Clone SZ21

For Research Use Only. Not for use in diagnostic procedures.

SPECIFICITY

The CD61 antigen (platelet glycoprotein gpIIb) is the 110 kDa integrin $\beta 3$ subunit, non-covalently associated with the integrin α chain CD41 (IIb) forming IIb-IIIa complex (α IIb- $\beta 3$ integrin) (1, 2). It is also associated with integrin αV chain CD51 forming vitronectin receptor (αV - $\beta 3$ integrin) (3). It is involved in platelet aggregation and adhesion to extracellular matrix. CD61 is present on platelets, megakaryocytes and macrophages.

CD61 is found in small and large vessel endothelial cells, fibroblasts and smooth muscle cells. SZ21 also reacts with platelets and megakaryocytes, osteoclasts, mast cells, some B lymphocytes, monocytes and macrophages.

The SZ21 antibody inhibits platelet aggregation and secretion induced by collagen, arachidonic acid, and thrombin. This antibody also inhibits fibrinogen binding to human platelets induced by ADP, arachidonic acid and PAF.

The SZ21 mAb has been assigned to the CD61 cluster of differentiation at the fifth International Workshop on Human Leucocyte Differentiation Antigens held in Boston, USA, in 1993 (4).

REAGENT

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Clone	SZ21
Isotype	IgG1, mouse
Immunogen	Washed human platelets
Hybridoma	P3-X63-Ag.8.653 x Balb/c spleen cells
Source	Ascites fluid
Purification	Protein A affinity chromatography
Buffer	1 mg/mL bovine serum albumin in phosphate-buffered saline

APPLICATION

Studies of CD61 positive cells by flow cytometry.

STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use antibody beyond the expiration date on the label.
4. Do not expose reagents to strong light during storage or incubation.
5. Avoid microbial contamination of reagents or incorrect results might occur.

STORAGE CONDITIONS AND STABILITY

This freeze-dried form may be stored at 2 – 8°C until the expiration date stated on the vial label.

No preservative has been added.

REAGENT PREPARATION

Depending of usage, reconstitute with 1 mL of distilled water, with or without 0.1% sodium azide (w/v).

The reconstituted form including 0.1% sodium azide may be stored for up to one month at 2 – 8°C.

The reconstituted form without sodium azide can be stored at –20°C or less, until the expiration date stated on the vial label.

In this case, aliquotting is recommended to avoid multiple freezing / thawing cycles.

PROCEDURE

Flow cytometry: Use 2 μ g (10 μ L of the recommended reconstituted form) per 5 x 10⁵ cells in one test, or per 100 μ L of whole blood.

For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.

SELECTED RESEARCH REFERENCES

1. Naik, U.P., Parise, L.V., "Structure and function of platelet α -allb- $\beta 3$ ", *Curr. Opin. Hematol.*, 4, 317-322.
2. De Haas, M., von der Borne, A.E.G.Kr., "CD41/CD61 workshop panel report", 1996, *Leucocyte Typing VI, White Cell Differentiation Antigens*, Kishimoto, T., et al, Eds., Garland Publishing, Inc., 643-644.
3. Hynes, R.O., "Integrins: A family of cell surface receptors", 1987, *Cell*, 48, 549-554.
4. Blanchard, D., Borche, L., Petit-Frioux, Y., Müller, J.Y., "Cell expression and biochemical characterization of platelet antigens recognized by workshop platelet panel mAb", 1995, *Leucocyte Typing V, White Cell Differentiation Antigens*, Schlossman, S.F., et al., Eds., Oxford University Press, 1225-1229.

PRODUCT AVAILABILITY

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