

MONOCLONAL ANTIBODY CD61

Cat. No.	Form	Quantity	Presentation
0540	Purified	0.2 mg	Freeze-dried
0721	Biotin	0.2 mg	Freeze-dried
1758	FITC	100 tests	Liquid 2 ml

Clone SZ21

Isotype IgG1 (mouse)

Immunogen Washed human platelets

Hybridoma Myeloma P3X63 Ag.8653 X Balb/c spleen cells

Specificity The molecular weight of the recognized antigen is 110 kDa.

CD61 antigen, also called gpIIb, is the integrin $\beta 3$ subunit noncovalently associated with the integrin α chain CD41, forming gpIIb/IIIa complex (α IIb $\beta 3$ integrin) or associated with integrin αv chain CD51 forming vitronectin receptor ($\alpha v\beta 3$ integrin)

CD61 antigen is present with CD41 on platelets and megakaryocytes, with CD51 on endothelial cells, some B cells, monocytes, macrophages and platelets.

SZ21 reacts with gpIIb (Western blot analysis).

This antibody inhibits the platelet aggregation and secretion of collagen, arachidonic acid, and thrombin.

It also inhibits fibrinogen binding to human platelets induced by ADP, arachidonic acid, and PAF.

Applications Studies of platelet functions.

Studies have shown that anti-CD61 antibodies can be useful in the identification of hemorrhagic diseases and of gpIIb/IIIa deficiency in Glanzman thromboastheny.

Buffer Freeze-dried forms: 1 mg/ml bovine serum albumin in phosphate buffered saline.

Liquid forms: 2 mg/ml bovine serum albumin in phosphate buffered saline containing 0.1% sodium azide.

Reconstitution and Storage The freeze-dried form may be stored at 2-8°C until the expiration date. Reconstitute with 1 ml of distilled water. No preservative has been added. The reconstituted form may be stored at -20°C until the expiration date. Aliquotting is suggested to avoid

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multiple freeze-thaw cycles. The addition of sodium azide at 0.1% (w/v) is recommended for storage of the reconstituted form for up to one month at 2-8°C.

The conjugated forms should not be frozen and should be stored in the dark at 2 - 8°C.

Recommended Procedures

Immunohistochemistry:

Working dilution 1:50 to 1:100

This antibody is suitable on frozen sections or cell smears.

Fluorescent microscopy or flow cytometry:

Liquid form: 20 μ l/10⁶ platelets/test

Freeze-dried form: 2 μ g/10⁶ platelets/test

References

- 1) Ruan, C., Du, X., Hwan, Hu, X., Xi, X. & Li, P. "Characterization of the fibrinogen binding sites using monoclonal antibodies to human platelet membrane glycoproteins IIb/IIIa" 1987, Thrombosis and Hemostasis, **58**, 1, 243 (abstract).
- 2) Phillips, D.R., Charo, I.F., Parise, L.V., and Fitzgerald, L.A. "The platelet membrane glycoprotein IIb-IIIa complex" 1988, Blood, **71**, 4, 831-843.
- 3) Clemetson, K.J., and Lüscher, E.F. "Membrane glycoprotein abnormalities in pathological platelets" 1988, Biochemica et Biophysica Acta, **947**, 53-73.
- 4) Chong, B.H., Du, X., Berndt, M. C., Horn, S., Chesterman, C.N " Characterization of the Binding Domains on Platelet Glycoproteins Ib-IX and IIb/IIIa Complexes for the Quinine/Quinidine-Dependent Antibodies " 1991, Blood, **77**, 2190-2199.