

**MONOCLONAL ANTIBODY CD41**

Cat. No.	Form	Quantity	Presentation
0539	Purified	0.2 mg	Freeze-dried
0720	Biotin	0.2 mg	Freeze-dried
1756	FITC	100 tests	Liquid 2 ml

**Clone** SZ22

**Isotype** IgG1 (mouse)

**Immunogen** Washed human platelets

**Hybridoma** Myeloma X63 Ag.8653 x Balb/c spleen cells

**Specificity** The molecular weight of the recognized antigen is 135 kDa.  
 CD41 is the integrin  $\alpha$ IIb chain, also called gpIIb, which is non-covalently associated with the integrin  $\beta$ 3 chain, also called gpIIIa (CD61), forming the gpIIb/IIIa complex.  
 SZ22 reacts with the  $\alpha$  chain of gpIIb independently of the presence of gpIIIa.  
 It reacts specifically with normal platelets and megakaryocytes but studies have shown that it does not react with Glanzmann's thrombasthenic platelets which lack the membrane glycoprotein gpIIb/IIIa.  
 SZ22 does not inhibit platelet aggregation and secretion induced by collagen, arachidonic acid, and thrombin.  
 It does not inhibit fibrinogen binding to human platelets induced by ADP, arachidonic acid, and PAF

**Applications** Studies of platelet functions.  
 Identification of gpIIb.  
 Western blot.

**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

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**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 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 µl/10<sup>6</sup> platelets/test

Freeze-dried form: 2 µg/10<sup>6</sup> platelets/test

**References**

This SZ22 antibody has been assigned to the CD41 cluster of differentiation at the 5th International Workshop on Human Leukocyte Differentiation Antigens in Boston (1993)

1) Ruan, C., Du, X., Hwan, Xu, X. & Li, P. 1987, " Characterization of the fibrinogen binding sites using monoclonal antibodies to human platelet membrane glycoproteins IIb/IIIa " Thrombosis and Haemostasis, ,58, No.1, 243 abstract No 901

2) Chong, B. H., Du, X., Berndt, M.C., Horn, S., and Chesterman, C.N. 1991, "Characterization of the binding domains on platelet glycoproteins Ib-IX and IIb/IIIa complexes for the quinine/quinine-dependent antibodies" Blood, 71 No10, 2190-2199