

Monoclonal Antibody to CD41 / ITGA2B - FITC

Alternate names: GP2B, GPalpha IIb, ITGAB, Integrin alpha-IIb, Platelet membrane glycoprotein IIb

Catalog No.: BM2322F Quantity: 100 Tests

Background: The CD41 antigen (platelet GPIIb; alpha IIb integrin) is a Glycoprotein composed of 2

chains, GPIIb alpha (120 kDa) and GPIIb beta (23kDa), linked by one disulfide bond. (1) CD41 is always non-covalently associated with CD61 (platelet GPIIIa, beta 3 integrin), to form the GPIIb-IIIa (CD41/CD61) complex. The structure and role of the complex CD41/CD61

in hemostasis is reviewed in Ref.2.

CD41 is expressed by platelets, Megakaryocytes and by a small subset of CD34+ cells suggesting that CD41/CD61 is the earliest marker of the Megakaryocytic lineage. (3) It has been assigned to the CD41 cluster of differentiation at the 5th International Workshop on Human Leucocyte Differentiation Antigens in Boston, in 1993.

 Uniprot ID:
 P08514

 NCBI:
 9606

Host / Isotype: Mouse / IgG1

Clone: SZ.22

Immunogen: Washed Human platelets.

Remarks: Myeloma cells with spleen cells from Balb/c mice.

Format: State: Liquid purified Ig fraction.

Purification: Ion Exchange or Affinity Chromatography.

Buffer System: PBS containing 2 mg/ml BSA as stabilizer and 0.09% Sodium Azide as

preservative.

Label: FITC - Conjugated to

Molar Ratio: 15-25 moles of FITC per mole Ig.

Applications: Studies of platelet functions.

Identification of gpllb.

Immunohistochemistry on Frozen Ssections or Cell Smears: 1/50-1/100 dilution.

Fluorescence Microscopy or Flow Cytometry: 20 µl/10e6 platelets/test.

Other applications not tested. Optimal dilutions are dependent on conditions and should

be determined by the user.

Specificity: Clone SZ.22 reacts with the alpha chain of CD41. (4,5)

Species: Human.

Other species not tested.

Add. Information: 20 μl per test



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Storage:

Store the antibody undiluted (in the dark) at 2-8°C.

DO NOT FREEZE!!

Shelf life: one year from despatch.

General References: 1. Newman, P.J., (1991), Platelet GPIIb-IIIa: molecular variations and alloantigens, Thromb. Haemostas., 1, 66, 111-118 [1551].

> 2. Naik, U.P., et al., Structure and function of platelet alpha allb beta3, Curr. Opin. Hematol., 4, 317-322 [4763].

- 3. Dercksen, W.M., et al., (1995), The value of flow cytometric analysis of platelet glycoprotein expression on CD34+ cells measured under conditions that prevent P-Selectin-mediated binding of platelets, Blood, 10, 3771-3782 [4948].
- 4. Ruan, C., et al., (1987), Characterization of the fibrinogen binding sites using monoclonal antibodies to human platelet membrane glycoproteins lib/IIIa, Thromb. Haemostas., 1, 58, 243 (abstract) [237].
- 5. Chong, B.H., et al., (1991), Characterization of the binding domains on platelets glycoproteins Ib-IX and IIb/IIIa complexes for the quinine/quinine-dependent antibodies, Blood, 10, 77, 2190-2199 [1698].
- 6. Honda, S., et al., (1995), CD41/CD61 cluster workshop report: localization of epitopes on integrins alpha IIb beta3 (CD41/CD61) and alpha v beta 3 (CD51/CD61), Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1293-1305 [2798].