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BM2322F Monoclonal Antibody to CD41 / ITGA2B - FITC

Alternate names:	GP2B, GPalpha IIb, ITGAB, Integrin alpha-IIb, Platelet membrane glycoprotein IIb
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
GeneID:	3674
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM10F (for use in human samples)
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 gpIIb. 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

Storage:

Store the antibody undiluted (in the dark) at 2-8°C.
DO NOT FREEZE!!
Shelf life: one year from despatch.

General Readings:

1. Newman, P.J., (1991), Platelet GPIIb-IIIa: molecular variations and alloantigens, Thromb. Haemostas., 1, 66, 111-118 [1551].
2. Naik UP, Parise LV. Structure and function of platelet alpha IIb beta 3. Curr Opin Hematol. 1997 Sep;4(5):317-22. PubMed PMID: 9288464.
3. Dercksen MW, Weimar IS, Richel DJ, Breton-Gorius J, Vainchenker W, Slaper-Cortenbach CM, et al. The value of flow cytometric analysis of platelet glycoprotein expression of CD34+ cells measured under conditions that prevent P-selectin-mediated binding of platelets. Blood. 1995 Nov 15;86(10):3771-82. PubMed PMID: 7579344.
4. Ruan, C., et al., (1987), Characterization of the fibrinogen binding sites using monoclonal antibodies to human platelet membrane glycoproteins Iib/IIIa, Thromb. Haemostas., 1, 58, 243 (abstract) [237].
5. Chong BH, Du XP, Berndt MC, Horn S, Chesterman CN. Characterization of the binding domains on platelet glycoproteins Ib-IX and IIb/IIIa complexes for the quinine/quinidine-dependent antibodies. Blood. 1991 May 15;77(10):2190-9. PubMed PMID: 1709374.
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].