Human Integrin β2/CD18 PE-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 212701

Catalog Number: FAB1730P

100 TESTS

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Integrin β2/CD18 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human Integrin β1 or recombinant mouse Integrin α5 is observed.
Source	Monoclonal Mouse IgG_1 Clone # 212701
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Integrin β2/CD18 Gln23-Asn700 Accession # AAA59490
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

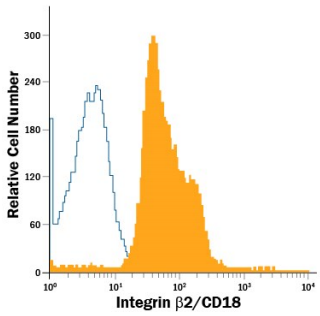
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of Integrin β2/CD18 in Human Peripheral Blood Lymphocytes by Flow Cytometry. Human peripheral blood Lymphocytes were stained with Mouse Anti-Human Integrin β2/CD18 PE-conjugated Monoclonal Antibody (Catalog # FAB1730P, filled histogram) or isotype control antibody (Catalog # IC002P, open histogram). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

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BACKGROUND

Integrin αXβ2, also called CD11c/CD18, p150/95 or complement receptor type 4 (CR4), is one of four β2 integrins. The non-covalent heterodimer of 150 kDa αX/CD11c and 95 kDa β2/CD18 integrin subunits is expressed on macrophages, dendritic cells and hairy cell leukemias, with lower amounts on other myeloid cells and activated B, NK and some cytotoxic T cells (1–7). Like other integrins, αXβ2 has multiple activation states (3). In the presence of divalent cations and "inside-out" signaling, αXβ2 is fully active and extended. The αX vWFA or I-domain, which contains the adhesion sites, forms the N-terminal head region with the αX beta-propeller and the β2 vWFA domain (1, 8). In the inactive state, the heterodimer flexes in the center at the αX thigh and calf domains and β2 I-EGF domains, impeding access to adhesion sites (1). The 1088 aa human αX/CD11c ECD shares 70–76% aa sequence identity with mouse, rat and canine αX while the 678 aa human β2/CD18 ECD shares 81–83% aa sequence identity with mouse, rat, cow, dog, goat, sheep, and pig β2. Potential αX isoforms containing 719 and 725 aa (as compared to full-length 1163 aa αX) lack the vWFA domain and the N-terminus. Active αXβ2 shares some adhesion partners with αMβ2/CD11b/CD18, including complement opsonin fragment iC3b, ICAMs, vWF and fibrinogen, and is expressed on many of the same cells (4–11). However, αMβ2 activity is often constitutive, while αXβ2 activity requires cell activation (4–7). αXβ2 also binds osteopontin, Thy-1, plasminogen, heparin, and proteins with abnormally exposed acidic residues (11–16). The adhesion events are important for proliferation, degranulation, chemotactic migration, and phagocytosis of complement-opsonized particles (5, 6, 9, 11, 12, 16). Mutations of β2, especially in the vWFA domain, cause leukocyte adhesion deficiency (LAD-1) and susceptibility to bacterial infections (17).

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