

Integrin α 2 (DX5): sc-52591

BACKGROUND

Integrins are heterodimers composed of noncovalently associated transmembrane α and β subunits. The 16 α and 8 β subunits heterodimerize to produce more than 20 different receptors. Most integrin receptors bind ligands that are components of the extracellular matrix, including fibronectin, collagen and vitronectin. Certain integrins can also bind to soluble ligands such as fibrinogen, or to counterreceptors on adjacent cells such as the intracellular adhesion molecules (ICAMs), leading to aggregation of cells. Ligands serve to cross-link or cluster integrins by binding to adjacent integrin receptors; both receptor clustering and ligand occupancy are necessary for the activation of integrin-mediated responses. In addition to mediating cell adhesion and cytoskeletal organization, integrins function as signaling receptors. Signals transduced by integrins play a role in many biological processes, including cell growth, differentiation, migration and apoptosis.

REFERENCES

1. Takada, Y., et al. 1989. The primary structure of the VLA-2/collagen receptor α 2 subunit (platelet GPIa): homology to other integrins and the presence of a possible collagen-binding domain. *J. Cell Biol* 109: 397-407.
2. Hynes, R.O. 1992. Integrins: versatility, modulation, and signaling in cell adhesion. *Cell* 69: 11-25.
3. Santoso, S., et al. 1993. The human platelet alloantigens Br(a) and Br(b) are associated with a single amino acid polymorphism on glycoprotein Ia (integrin subunit α 2). *J. Clin. Invest* 92: 2427-2432.
4. Clark, E.A. and Brugge, J.S. 1995. Integrins and signal transduction pathways: the road taken. *Science* 268: 233-239.
5. Juliano, R. 1996. Cooperation between soluble factors and integrin-mediated cell anchorage in the control of cell growth and differentiation. *Bioessays* 18: 911-917.
6. Miyamoto, S., et al. 1995. Synergistic roles for receptor occupancy and aggregation in integrin transmembrane function. *Science* 267: 883-885.
7. Sheppard, D. 1996. Epithelial integrins. *Bioessays* 18: 655-660.
8. Kroll, H., et al. 2000. The impact of the glycoprotein Ia collagen receptor subunit A1648G gene polymorphism on coronary artery disease and acute myocardial infarction. *Thromb. Haemost* 83: 392-396.

CHROMOSOMAL LOCATION

Genetic locus: ITGA2 (human) mapping to 5q23-q31; Itga2 (mouse) mapping to 13 D2.3.

SOURCE

Integrin α 2 (DX5) is a rat monoclonal antibody raised against Integrin α 2 of mouse origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 100 μ g IgM in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as fluorescein (sc-52591 FITC) conjugate for flow cytometry, 100 tests.

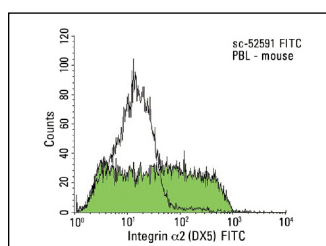
APPLICATIONS

Integrin α 2 (DX5) is recommended for detection of Integrin α 2 of mouse origin by flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for Integrin α 2 siRNA (m): sc-35683.

Molecular Weight of Integrin α 2: 150 kDa.

DATA



Integrin α 2 (DX5): sc-52591. Indirect FCM analysis of mouse peripheral blood leukocytes stained with Integrin α 2 (DX5), followed by FITC-conjugated goat anti-rat IgM. Black line histogram represents the isotype control, normal rat IgM: sc-3885.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.