

Integrin α V/ β 3 (BV3): sc-52684

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

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2. Kieffer, N. and Phillips, D.R. 1991. Platelet membrane glycoproteins: functions in cellular interactions. *Annu. Rev. Cell Biol.* 6: 329-357.
3. Bray, P.F. 1995. Inherited diseases of platelet glycoproteins: considerations for rapid molecular characterization. *Thromb. Haemost.* 72: 492-502.
4. Schlossman, S.L., et al. 1995. Leukocyte typing V: white cell differentiation antigens, Oxford University Press, Oxford.
5. Law, D.A., et al. 1996. Outside-in integrin signal transduction. α IIb/ β 3- (GP IIb/IIIa) tyrosine phosphorylation induced by platelet aggregation. *J. Biol. Chem.* 271: 10811-10815.
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CHROMOSOMAL LOCATION

Genetic locus: ITGAV (human) mapping to 2q32.1, ITGAV (human) mapping to 17q21.32.

SOURCE

Integrin α V/ β 3 (BV3) is a mouse monoclonal antibody raised against Integrin α V/ β 3 of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin α V/ β 3 (BV3) is available conjugated fluorescein (sc-52684 FITC, 100 tests in 2 ml), for IF, IHC(P) and FCM.

STORAGE

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

APPLICATIONS

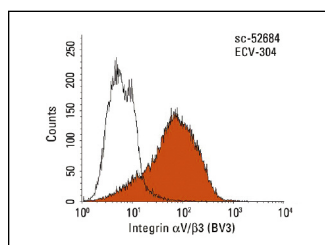
Integrin α V/ β 3 (BV3) is recommended for detection of Integrin α V/ β 3 present on endothelium cells of human origin by immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and flow cytometry (1 μ g per 1 x 10⁶ cells).

Molecular Weight of Integrin α V/ β 3: 95 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Integrin α V/ β 3 (BV3): sc-52684 Indirect FCM analysis of ECV-304 cells stained with Integrin α V/ β 3 (BV3), followed by PE-conjugated goat anti-mouse IgG: sc-3738. Black line histogram represents the isotype control, normal mouse IgG₁: sc-3877.

SELECT PRODUCT CITATIONS

1. Wang, H., et al. 2014. Enhanced antitumor efficacy of integrin-targeted oncolytic adenovirus AxdAdB3-F/RGD on bladder cancer. *Urology* 83: 508.e13-508.e19.

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.

CONJUGATES

See **Integrin α V (P2W7): sc-9969** for Integrin α V antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647.