

Integrin β 1 (P5D2): sc-13590

BACKGROUND

Integrins are heterodimers composed of non-covalently associated transmembrane α and β subunits. The 16α and 8β 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.

CHROMOSOMAL LOCATION

Genetic locus: ITGB1 (human) mapping to 10p11.22.

SOURCE

Integrin β 1 (P5D2) is a mouse monoclonal antibody raised against human epidermal keratinocytes.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for blocking, sc-13590 L, 200 μ g/0.1 ml.

Integrin β 1 (P5D2) is available conjugated to agarose (sc-13590 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-13590 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-13590 PE), fluorescein (sc-13590 FITC), Alexa Fluor[®] 488 (sc-13590 AF488), Alexa Fluor[®] 546 (sc-13590 AF546), Alexa Fluor[®] 594 (sc-13590 AF594) or Alexa Fluor[®] 647 (sc-13590 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-13590 AF680) or Alexa Fluor[®] 790 (sc-13590 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Integrin β 1 (P5D2) is recommended for detection of Integrin β 1 of human origin by Western Blotting (non-reducing) (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1×10^6 cells).

Suitable for use as control antibody for Integrin β 1 siRNA (h): sc-35674, Integrin β 1 shRNA Plasmid (h): sc-35674-SH and Integrin β 1 shRNA (h) Lentiviral Particles: sc-35674-V.

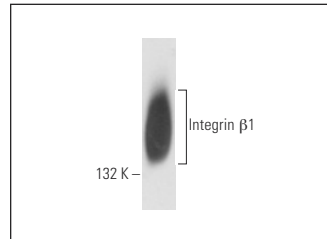
Molecular Weight of Integrin β 1: 138 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, HeLa whole cell lysate: sc-2200 or U-937 cell lysate: sc-2239.

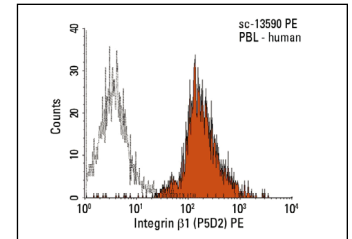
STORAGE

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

DATA



Integrin β 1 (P5D2): sc-13590. Western blot analysis of Integrin β 1 expression in U-937 whole cell lysate under non-reducing conditions.



Integrin β 1 (P5D2) PE: sc-13590 PE. FCM analysis of human peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse IgG₁-PE: sc-2866.

SELECT PRODUCT CITATIONS

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- Kenny, H.A., et al. 2014. Mesothelial cells promote early ovarian cancer metastasis through fibronectin secretion. *J. Clin. Invest.* 124: 4614-4628.
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- Lu, M., et al. 2018. Basolateral CD147 induces hepatocyte polarity loss by E-cadherin ubiquitination and degradation in hepatocellular carcinoma progress. *Hepatology* 68: 317-332.
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RESEARCH USE

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