

Integrin $\beta 1$ (K-20): sc-18887

BACKGROUND

Integrins are heterodimers composed of non-covalently 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.

CHROMOSOMAL LOCATION

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

SOURCE

Integrin $\beta 1$ (K-20) is a mouse monoclonal antibody raised against human T cell lymphoma cell line.

PRODUCT

Each vial contains 200 μg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin $\beta 1$ (K-20) is available conjugated to either fluorescein (sc-18887 FITC), Alexa Fluor[®] 546 (sc-18887 AF546) or Alexa Fluor[®] 594 (sc-18887 AF594), 200 $\mu\text{g}/\text{ml}$, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-18887 AF680) or Alexa Fluor[®] 790 (sc-18887 AF790), 200 $\mu\text{g}/\text{ml}$, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Integrin $\beta 1$ (K-20) is recommended for detection of Integrin $\beta 1$ of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μg per 1×10^6 cells).

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

Molecular Weight of Integrin $\beta 1$: 138 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or A549 cell lysate: sc-2413.

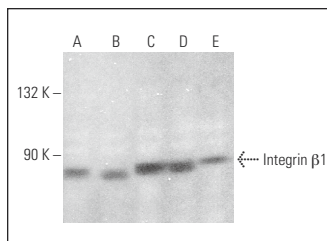
STORAGE

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

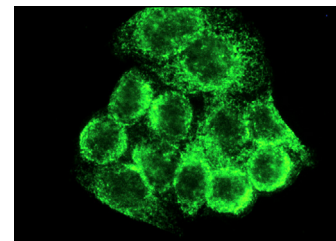
RESEARCH USE

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

DATA



Integrin $\beta 1$ (K-20): sc-18887. Western blot analysis of Integrin $\beta 1$ expression in A549 (A), Jurkat (B), HeLa (C), Raji (D) and Hep G2 (E) whole cell lysates.



Integrin $\beta 1$ (K-20): sc-18887. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and cytoplasmic localization.

SELECT PRODUCT CITATIONS

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- Weber-Boyvat, M., et al. 2015. OSBP-related protein 3 (ORP3) coupling with VAMP-associated protein A regulates R-Ras activity. *Exp. Cell Res.* 331: 278-291.
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- Rivera-Serrano, E.E., et al. 2019. Cellular entry and uncoating of naked and quasi-enveloped human hepatoviruses. *Elife* 8: e43983.
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- Bartolomé, R.A., et al. 2021. CDH6-activated $\alpha 1\beta 3$ crosstalks with $\alpha 2\beta 1$ to trigger cellular adhesion and invasion in metastatic ovarian and renal cancers. *Mol. Oncol.* 15: 1849-1865.

PROTOCOLS

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