

Integrin $\alpha 2$ (HAS-3): sc-53352

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 counter-receptors 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. Integrin $\alpha 2$ is responsible for adhesion of platelets and other cells to collagens. Modulation of collagen and collagenase gene expression force generation and organization of newly synthesized extracellular matrix.

CHROMOSOMAL LOCATION

Genetic locus: ITGA2 (human) mapping to 5q11.2.

SOURCE

Integrin $\alpha 2$ (HAS-3) is a mouse monoclonal antibody raised against whole keratinocytes of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin $\alpha 2$ (HAS-3) is available conjugated to either phycoerythrin (sc-53352 PE) or fluorescein (sc-53352 FITC), 200 μ g/ml, for WB (RGB), 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 $\alpha 2$ (HAS-3) is recommended for detection of Integrin $\alpha 2$ of human origin by 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for Integrin $\alpha 2$ siRNA (h): sc-29371, Integrin $\alpha 2$ shRNA Plasmid (h): sc-29371-SH and Integrin $\alpha 2$ shRNA (h) Lentiviral Particles: sc-29371-V.

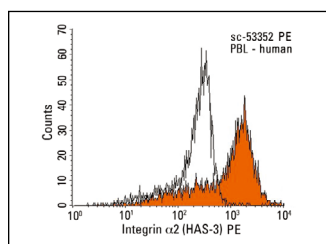
Molecular Weight of Integrin $\alpha 2$: 150 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, CCRF-CEM cell lysate: sc-2225 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 3) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Integrin $\alpha 2$ (HAS-3): sc-53352. Indirect FCM analysis of human peripheral blood leukocytes stained with Integrin $\alpha 2$ (HAS-3), followed by PE-conjugated goat anti-mouse IgG_{2a}: sc-3765. Black line histogram represents the isotype control, normal mouse IgG_{2a}: sc-3878.

SELECT PRODUCT CITATIONS

1. Trerotola, M., et al. 2010. CD133, Trop-2 and $\alpha 2 \beta 1$ integrin surface receptors as markers of putative human prostate cancer stem cells. *Am. J. Transl. Res.* 2: 135-144.
2. Teklemariam, T., et al. 2011. Functional analysis of a recombinant PIII-SVMP, GST-acocostatin; an apoptotic inducer of HUVEC and HeLa, but not SK-Mel-28 cells. *Toxicol* 57: 646-656.
3. Lucena, S.E., et al. 2012. Anti-invasive and anti-adhesive activities of a recombinant disintegrin, r-iridistatin 2, derived from the prairie rattlesnake (*Crotalus viridis viridis*). *Toxicol* 60: 31-39.
4. Zuliani, T., et al. 2013. Fetal fibroblasts and keratinocytes with immunosuppressive properties for allogeneic cell-based wound therapy. *PLoS ONE* 8: e70408.
5. Taubenberger, A.V., et al. 2016. 3D extracellular matrix interactions modulate tumour cell growth, invasion and angiogenesis in engineered tumour microenvironments. *Acta Biomater.* 36: 73-85.
6. Willbold, R., et al. 2019. Excess hepsin proteolytic activity limits oncogenic signaling and induces ER stress and autophagy in prostate cancer cells. *Cell Death Dis.* 10: 601.

RESEARCH USE

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