

Integrin $\alpha 6$ (GOH3): sc-19622

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.

CHROMOSOMAL LOCATION

Genetic locus: ITGA6 (human) mapping to 2q31.1; Itga6 (mouse) mapping to 2 C2.

SOURCE

Integrin $\alpha 6$ (GOH3) is a rat monoclonal antibody raised against an extracellular epitope of Integrin $\alpha 6$ of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for blocking the binding of Integrin $\alpha 6$ to laminin P1 and E8 fragments, sc-19622 L, 200 μ g/0.1 ml.

Integrin $\alpha 6$ (GOH3) is available conjugated to agarose (sc-19622 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-19622 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-19622 PE), fluorescein (sc-19622 FITC), Alexa Fluor[®] 488 (sc-19622 AF488), Alexa Fluor[®] 546 (sc-19622 AF546), Alexa Fluor[®] 594 (sc-19622 AF594) or Alexa Fluor[®] 647 (sc-19622 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-19622 AF680) or Alexa Fluor[®] 790 (sc-19622 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Integrin $\alpha 6$ (GOH3) is recommended for detection of Integrin $\alpha 6$ of mouse, rat and human origin by Western Blotting (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 x 10⁶ cells).

Suitable for use as control antibody for Integrin $\alpha 6$ siRNA (h): sc-43129, Integrin $\alpha 6$ siRNA (m): sc-43130, Integrin $\alpha 6$ shRNA Plasmid (h): sc-43129-SH, Integrin $\alpha 6$ shRNA Plasmid (m): sc-43130-SH, Integrin $\alpha 6$ shRNA (h) Lentiviral Particles: sc-43129-V and Integrin $\alpha 6$ shRNA (m) Lentiviral Particles: sc-43130-V.

Molecular Weight of Integrin $\alpha 6$ proform: 140 kDa.

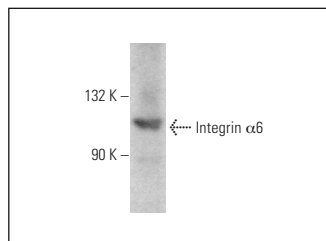
Molecular Weight of Integrin $\alpha 6$ heavy chain: 120 kDa.

Positive Controls: PC-3 cell lysate: sc-2220.

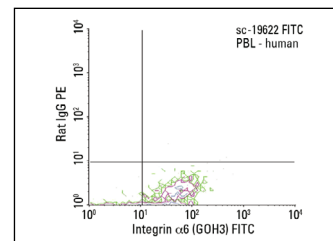
STORAGE

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

DATA



Integrin $\alpha 6$ (GOH3): sc-19622. Western blot analysis of Integrin $\alpha 6$ expression in PC-3 whole cell lysate.



Integrin $\alpha 6$ (GOH3) FITC: sc-19622 FITC. FCM analysis of human peripheral blood leukocytes. Quadrant markers were set based on the isotype control, normal rat IgG_{2a}-FITC: sc-2831.

SELECT PRODUCT CITATIONS

- Anderson, K. and Ferreira, A. 2004. $\alpha 1$ Integrin activation: a link between β -amyloid deposition and neuronal death in aging hippocampal neurons. *J. Neurosci. Res.* 75: 688-697.
- Ozeki, N., et al. 2013. Mouse-induced pluripotent stem cells differentiate into odontoblast-like cells with induction of altered adhesive and migratory phenotype of integrin. *PLoS ONE* 8: e80026.
- Kawai, R., et al. 2014. Mouse ES cells have a potential to differentiate into odontoblast-like cells using hanging drop method. *Oral Dis.* 20: 395-403.
- Mori, S., et al. 2015. Enhanced expression of integrin $\alpha \nu \beta 3$ induced by TGF- β is required for the enhancing effect of fibroblast growth factor 1 (FGF1) in TGF- β -induced epithelial-mesenchymal transition (EMT) in mammary epithelial cells. *PLoS ONE* 10: e0137486.
- Zhan, R., et al. 2016. Nitric oxide promotes epidermal stem cell migration via cGMP-Rho GTPase signalling. *Sci. Rep.* 6: 30687.
- Berardi, D.E., et al. 2017. Laminin modulates the stem cell population in LM05-E murine breast cancer cells through the activation of the MAPK/ERK pathway. *Cancer Res. Treat.* 49: 869-879.
- Kariya, Y., et al. 2018. $\beta 4$ -Integrin/PI3K signaling promotes tumor progression through the galectin-3-N-glycan complex. *Mol. Cancer Res.* 16: 1024-1034.
- 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.
- Iriyama, S., et al. 2020. Decrease of laminin-511 in the basement membrane due to photoaging reduces epidermal stem/progenitor cells. *Sci. Rep.* 10: 12592.

RESEARCH USE

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

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