

Integrin $\alpha 2$ (N-19): sc-6586

BACKGROUND

Integrins are heterodimers composed of noncovalently associated transmembrane α and β subunits. The sixteen α and eight 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; Itga2 (mouse) mapping to 13 D2.2.

SOURCE

Integrin $\alpha 2$ (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Integrin $\alpha 2$ of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6586 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Integrin $\alpha 2$ (N-19) is recommended for detection of Integrin $\alpha 2$ 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Integrin $\alpha 2$ (N-19) is also recommended for detection of Integrin $\alpha 2$ in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Integrin $\alpha 2$ siRNA (h): sc-29371, Integrin $\alpha 2$ siRNA (m): sc-35683, Integrin $\alpha 2$ shRNA Plasmid (h): sc-29371-SH, Integrin $\alpha 2$ shRNA Plasmid (m): sc-35683-SH, Integrin $\alpha 2$ shRNA (h) Lentiviral Particles: sc-29371-V and Integrin $\alpha 2$ shRNA (m) Lentiviral Particles: sc-35683-V.

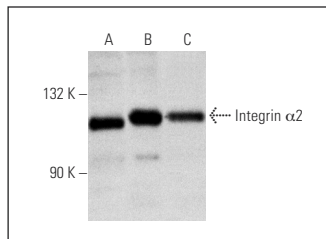
Molecular Weight of Integrin $\alpha 2$: 150 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, CCRF-CEM cell lysate: sc-2225 or CCRF-HSB-2 cell lysate: sc-2265.

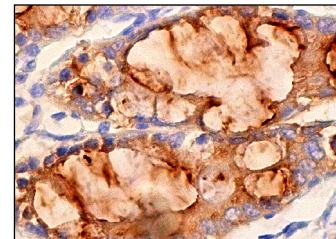
STORAGE

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

DATA



Integrin $\alpha 2$ (N-19): sc-6586. Western blot analysis of Integrin $\alpha 2$ expression in BJAB (A), CCRF-CEM (B) and CCRF-HSB-2 (C) whole cell lysates.



Integrin $\alpha 2$ (N-19): sc-6586. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing membrane and cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Dyce, O.H., et al. 2002. Integrins in head and neck squamous cell carcinoma invasion. *Laryngoscope* 112: 2025-2032.
- Edwards, J.L., et al. 2005. I-domain-containing integrins serve as pilus receptors for *Neisseria gonorrhoeae* adherence to human epithelial cells. *Cell. Microbiol.* 7: 1197-1211.
- Tucker, K.L., et al. 2008. A dual role for integrin linked kinase in platelets: regulating integrin function and α -granule secretion. *Blood* 112: 4523-4531.
- Alba, A., et al. 2008. Natural killer cells are required for accelerated type 1 diabetes driven by interferon- β . *Clin. Exp. Immunol.* 151: 467-475.
- Martin, S., et al. 2009. Caveolin-1 regulates glioblastoma aggressiveness through the control of $\alpha 5 \beta 1$ integrin expression and modulates glioblastoma responsiveness to SJ749, an $\alpha 5 \beta 1$ integrin antagonist. *Biochim. Biophys. Acta* 1793: 354-367.
- Sondag, C.M., et al. 2010. Adhesion of monocytes to type I collagen stimulates an APP-dependent proinflammatory signaling response and release of $A\beta 1-40$. *J. Neuroinflammation* 7: 22.
- Cao, Y., et al. 2013. Neuropilin-2 promotes extravasation and metastasis by interacting with endothelial $\alpha 5$ integrin. *Cancer Res.* 73: 4579-4590.

RESEARCH USE

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



Try **Integrin $\alpha 2$ (C-9): sc-74466** or **Integrin $\alpha 2$ (HAS-4): sc-53353**, our highly recommended monoclonal alternatives to Integrin $\alpha 2$ (N-19).