

Integrin α 4 (N-19): sc-6590

BACKGROUND

Integrins are heterodimers composed of noncovalently associated transmembrane α and β subunits. The 16 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 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: ITGA4 (human) mapping to 2q31.3.

SOURCE

Integrin α 4 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Integrin α 4 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-6590 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Integrin α 4 (N-19) is recommended for detection of Integrin α 4 of 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 α 4 (N-19) is also recommended for detection of Integrin α 4 in additional species, including bovine.

Suitable for use as control antibody for Integrin α 4 siRNA (h): sc-35685, Integrin α 4 shRNA Plasmid (h): sc-35685-SH and Integrin α 4 shRNA (h) Lentiviral Particles: sc-35685-V.

Molecular Weight of Integrin α 4: 150 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, Jurkat whole cell lysate: sc-2204 or GA-10 whole cell lysate: sc-364230.

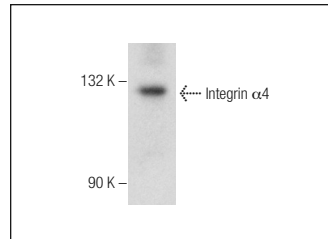
STORAGE

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

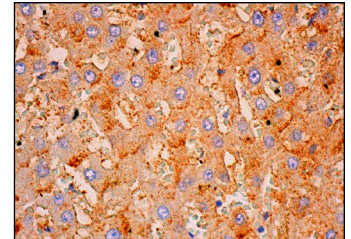
RESEARCH USE

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

DATA



Integrin α 4 (N-19): sc-6590. Western blot analysis of Integrin α 4 expression in GA-10 whole cell lysate.



Integrin α 4 (N-19): sc-6590. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing membrane and cytoplasmic staining of hepatocytes.

SELECT PRODUCT CITATIONS

- Yasuda, T., et al. 2003. Matrix metalloproteinase production by COOH-terminal heparin-binding Fibronectin fragment in rheumatoid synovial cells. *Lab. Invest.* 83: 153-162.
- Muramatsu, H., et al. 2004. α 4 β 1- and α 6 β 1 Integrins are functional receptors for midkine, a heparin-binding growth factor. *J. Cell Sci.* 117: 5405-5415.
- Barrinhaus, K.G., et al. 2004. α 4/ β 1 Integrin (VLA-4) blockade attenuates both early and late leukocyte recruitment and neointimal growth following carotid injury in apolipoprotein E^{-/-} mice. *J. Vasc. Res.* 41: 252-260.
- Yang, C.R., et al. 2005. Decoy receptor 3 increases monocyte adhesion to endothelial cells via NF κ B-dependent up-regulation of intercellular adhesion molecule-1, VCAM-1, and IL-8 expression. *J. Immunol.* 174: 1647-1656.
- Garmy-Susini, B., et al. 2005. Integrin α 4/ β 1-VCAM-1-mediated adhesion between endothelial and mural cells is required for blood vessel maturation. *J. Clin. Invest.* 115: 1542-1551.
- de Nigris, F., et al. 2006. Cooperation between Myc and YY1 provides novel silencing transcriptional targets of α 3/ β 1 Integrin in tumour cells. *Oncogene* 26: 382-394.

PROTOCOLS

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


 MONOS
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Try **Integrin α 4 (C-2): sc-365569** or **Integrin α 4 (A-7): sc-365209**, our highly recommended monoclonal alternatives to Integrin α 4 (N-19).