

Integrin $\alpha 5$ (P-19): sc-6595

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: ITGA5 (human) mapping to 12q13.13.

SOURCE

Integrin $\alpha 5$ (P-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Integrin $\alpha 5$ 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-6595 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

PROTOCOLS

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

APPLICATIONS

Integrin $\alpha 5$ (P-19) is recommended for detection of Integrin $\alpha 5$ heavy chain 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Integrin $\alpha 5$ siRNA (h): sc-29372, Integrin $\alpha 5$ shRNA Plasmid (h): sc-29372-SH and Integrin $\alpha 5$ shRNA (h) Lentiviral Particles: sc-29372-V.

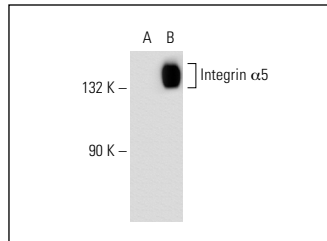
Molecular Weight of Integrin $\alpha 5$: 150 kDa.

Positive Controls: Integrin $\alpha 5$ (h2): 293T Lysate: sc-173755, HeLa whole cell lysate: sc-2200 or U-937 cell lysate: sc-2239.

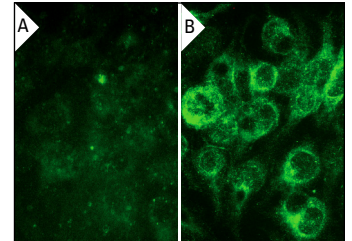
STORAGE

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

DATA



Integrin $\alpha 5$ (P-19): sc-6595. Western blot analysis of Integrin $\alpha 5$ expression in non-transfected: sc-117752 (A) and human Integrin $\alpha 5$ transfected: sc-173755 (B) 293T whole cell lysates.



Integrin $\alpha 5$ (P-19): sc-6595. Immunofluorescence staining of methanol-fixed untransfected HEK 293T cells (A) and human Integrin $\alpha 5$ transfected HEK 293T cells (B).

SELECT PRODUCT CITATIONS

- Matias, M.A., et al. 2003. Immunohistochemical localisation of extracellular matrix proteins in the periodontium during cementogenesis in the rat molar. *Arch. Oral Biol.* 48: 709-716.
- Roman, J., et al. 2004. Lipopolysaccharide induces expression of Fibronectin $\alpha 5$ $\beta 1$ -integrin receptors in human monocytic cells in a protein kinase C-dependent fashion. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 287: L239-L249.
- Yokoyama, Y. and Ramakrishnan, S. 2007. Binding of endostatin to human ovarian cancer cells inhibits cell attachment. *Int. J. Cancer* 121: 2402-2409.
- McIlhenny, S.E., et al. 2010. Linear shear conditioning improves vascular graft retention of adipose-derived stem cells by upregulation of the $\alpha 5 \beta 1$ integrin. *Tissue Eng. Part A* 16: 245-255.
- Wu, F., et al. 2011. Endogenous axon guiding chemorepulsant semaphorin-3F inhibits the growth and metastasis of colorectal carcinoma. *Clin. Cancer Res.* 17: 2702-2711.
- Guo, Q., et al. 2012. A new candidate substrate for cell-matrix adhesion study: the acellular human amniotic matrix. *J. Biomed. Biotechnol.* 2012: 306083.



Try **Integrin $\alpha 5$ (C-9): sc-376199** or **Integrin $\alpha 5$ (A-11): sc-166665**, our highly recommended monoclonal alternatives to Integrin $\alpha 5$ (P-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Integrin $\alpha 5$ (C-9): sc-376199**.