

Integrin $\alpha 3$ (C-18): sc-6587

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. The integrin $\alpha 3$ chain, also known as very late (activation) antigen 3 (VLA-3), very common antigen 2 (VCA-2), extracellular matrix receptor 1 (ECMR1), and galactoprotein $\beta 3$ (GAPB3), undergoes post-translational cleavage in the extracellular domain to yield disulfide-linked light and heavy chains that join with $\beta 1$ to form an integrin that interacts with many extracellular-matrix proteins.

CHROMOSOMAL LOCATION

Genetic locus: ITGA3 (human) mapping to 17q21.33; Itga3 (mouse) mapping to 11 D.

SOURCE

Integrin $\alpha 3$ (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Integrin $\alpha 3$ 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-6587 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Integrin $\alpha 3$ (C-18) is recommended for detection of Integrin $\alpha 3$ of mouse, rat, human and *Xenopus laevis* 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).

Integrin $\alpha 3$ (C-18) is also recommended for detection of Integrin $\alpha 3$ in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for Integrin $\alpha 3$ siRNA (h): sc-35684, Integrin $\alpha 3$ siRNA (m): sc-37120, Integrin $\alpha 3$ shRNA Plasmid (h): sc-35684-SH, Integrin $\alpha 3$ shRNA Plasmid (m): sc-37120-SH, Integrin $\alpha 3$ shRNA (h) Lentiviral Particles: sc-35684-V and Integrin $\alpha 3$ shRNA (m) Lentiviral Particles: sc-37120-V.

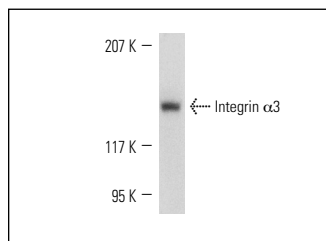
Molecular Weight of Integrin $\alpha 3$: 150 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224.

STORAGE

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

DATA



Integrin $\alpha 3$ (C-18): sc-6587. Western blot analysis of Integrin $\alpha 3$ expression in Caki-1 whole cell lysate.

SELECT PRODUCT CITATIONS

- Sixt, M., et al. 2001. Cell adhesion and migration properties of $\beta 2$ Integrin negative polymorphonuclear granulocytes on defined extracellular matrix molecules. *J. Biol. Chem.* 276: 18878-18887.
- Hammes, A., et al. 2001. Two splice variants of the Wilms' tumor 1 gene have distinct functions during sex determination and nephron formation. *Cell* 106: 319-329.
- Billy, E., et al. 2001. Specific interference with gene expression induced by long, double-stranded RNA in mouse embryonal teratocarcinoma cell lines. *Proc. Natl. Acad. Sci. USA* 98: 14428-14433.
- Nobumoto, A., et al. 2008. galectin-9 suppresses tumor metastasis by blocking adhesion to endothelium and extracellular matrices. *Glycobiology* 18: 735-744.
- Hill, J.J., et al. 2009. Glycoproteomic analysis of two mouse mammary cell lines during transforming growth factor (TGF)- β induced epithelial to mesenchymal transition. *Proteome Sci.* 7: 2.
- Grabowska, I., et al. 2010. Comparison of satellite cell derived myoblasts and C2C12 differentiation in two- and three-dimensional cultures: changes in adhesion protein expression. *Cell Biol. Int.* 35: 125-133.
- 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 $\alpha 3$ (A-3): sc-374242** or **Integrin $\alpha 3$ (E-8): sc-393298**, our highly recommended monoclonal alternatives to Integrin $\alpha 3$ (C-18). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Integrin $\alpha 3$ (A-3): sc-374242**.