

Integrin β 4 (C-20): sc-6628

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. Integrin β 4 (ITGB4), also known as CD104, is a 1,822 amino acid single-pass type I membrane protein belonging to the Integrin β chain family. Known to associate with Integrin α 6, Integrin β 4 functions as a receptor for laminin and is predominantly expressed by epithelia. Integrin β 4 exists as five alternatively spliced isoforms that are encoded by a gene located on human chromosome 17q25.1.

REFERENCES

- Hynes, R.O. 1992. Integrins: versatility, modulation and signaling in cell adhesion. *Cell* 69: 11-25.
- Miyamoto, S., et al. 1995. Synergistic roles for receptor occupancy and aggregation in integrin transmembrane function. *Science* 267: 883-885.

CHROMOSOMAL LOCATION

Genetic locus: ITGB4 (human) mapping to 17q25.1; Itgb4 (mouse) mapping to 11 E2.

SOURCE

Integrin β 4 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Integrin β 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-6628 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Integrin β 4 (C-20) is recommended for detection of Integrin β 4 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Integrin β 4 siRNA (h): sc-35678, Integrin β 4 siRNA (m): sc-35679, Integrin β 4 shRNA Plasmid (h): sc-35678-SH, Integrin β 4 shRNA Plasmid (m): sc-35679-SH, Integrin β 4 shRNA (h) Lentiviral Particles: sc-35678-V and Integrin β 4 shRNA (m) Lentiviral Particles: sc-35679-V.

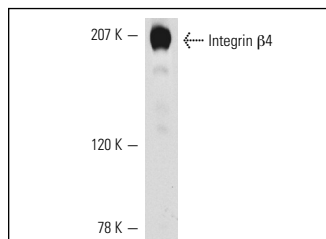
Molecular Weight of Integrin β 4: 205 kDa.

Positive Controls: A-431 + pervanadate cell lysate: sc-24654, SW480 cell lysate: sc-2219 or MCF7 whole cell lysate: sc-2206.

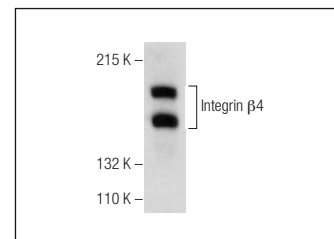
STORAGE

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

DATA



Integrin β 4 (C-20): sc-6628. Western blot analysis of Integrin β 4 expression in SW480 whole cell lysate.



Integrin β 4 (C-20): sc-6628. Western blot analysis of Integrin β 4 expression in pervanadate treated A-431 whole cell lysate.

SELECT PRODUCT CITATIONS

- Robbins, P.B., et al. 2001. *In vivo* restoration of Laminin 5 β -3 expression and function in junctional epidermolysis bullosa. *Proc. Natl. Acad. Sci. USA* 98: 5193-5198.
- Pouliot, N., et al. 2001. Laminin-10 mediates basal and EGF-stimulated motility of human colon carcinoma cells via α 3 β 1 and α 6 β 4 integrins. *Exp. Cell Res.* 266: 1-10.
- Furlan, A., et al. 2008. Ets-1 triggers and orchestrates the malignant phenotype of mammary cancer cells within their matrix environment. *J. Cell. Physiol.* 215: 782-793.
- Vijayakumar, S., et al. 2008. Role of integrins in the assembly and function of hensen in intercalated cells. *J. Am. Soc. Nephrol.* 19: 1079-1091.
- Grootenboer-Mignot, S., et al. 2009. Place of human amniotic membrane immunoblotting in the diagnosis of autoimmune bullous dermatoses. *Br. J. Dermatol.* 162: 743-750.
- 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.
- Ge, D., et al. 2013. Phosphorylation and nuclear translocation of integrin β 4 induced by a chemical small molecule contribute to apoptosis in vascular endothelial cells. *Apoptosis* 18: 1120-1131.

RESEARCH USE

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



Try **Integrin β 4 (F-7): sc-514252** or **Integrin β 4 (H-1): sc-55514**, our highly recommended monoclonal alternatives to Integrin β 4 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Integrin β 4 (F-7): sc-514252**.