SANTA CRUZ BIOTECHNOLOGY, INC.

Integrin αV (Q-20)-R: sc-6617-R

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

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: ITGAV (human) mapping to 2q32.1; Itgav (mouse) mapping to 2 D.

SOURCE

Integrin αV (Q-20)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Integrin αV of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-6617 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Integrin αV (Q-20)-R is recommended for detection of Integrin αV heavy chain of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for Integrin αV siRNA (h): sc-29373, Integrin αV siRNA (m): sc-35694, Integrin αV shRNA Plasmid (h): sc-29373-SH, Integrin αV shRNA Plasmid (m): sc-35694-SH, Integrin αV shRNA (h) Lentiviral Particles: sc-29373-V and Integrin αV shRNA (m) Lentiviral Particles: sc-35694-V.

Molecular Weight of Integrin αV: 125-135 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232, BT-20 cell lysate: sc-2223 or SK-MEL-28 cell lysate: sc-2236.

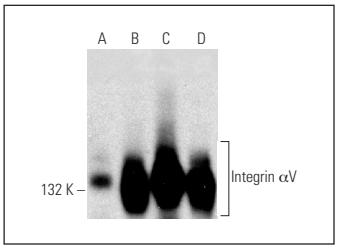
STORAGE

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

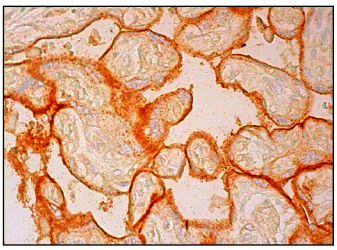
RESEARCH USE

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

DATA



Integrin αV (Q-20)-R: sc-6617-R. Western blot analysis of Integrin αV expression in human PBL (**A**), MDA-MB-231 (**B**), BT-20 (**C**) and SK-MEL-28 (**D**) whole cell lysates.



Integrin αV (Q-20)-R: sc-6617-R. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing membrane and cytoplasmic staining of trophoblastic cells.

SELECT PRODUCT CITATIONS

1. Geissinger, E., et al. 2002. Autocrine stimulation by osteopontin contributes to antiapoptotic signalling of melanocytes in dermal collagen. Cancer Res. 62: 4820-4828.
2. Fukumori, T., et al. 2003. CD29 and CD7 mediate Galectin-3-induced type II T cell apoptosis. Cancer Res. 63: 8302-8311.
3. Luettich, K. and Schmidt, C. 2003. TGFβ1 activates c-Jun and Erk1 via αVβ6 integrin. Mol. Cancer 2: 33.
4. Samoylova, T.I., et al. 2004. Phage matrix for isolation of glioma cell membrane proteins. BioTechniques 37: 254-260.
5. Shimamura, N., et al. 2006. Inhibition of integrin αV/β3 ameliorates focal cerebral ischemic damage in the rat middle cerebral artery occlusion model. Stroke 37: 1902-1909.
6. Rowland, T.J., et al. 2009. Roles of integrins in human induced pluripotent stem cell growth on matrigel and vitronectin. Stem Cells Dev. 19: 1231-1240.
7. Ma, T., et al. 2010. Regulation of sealing ring formation by L-plastin and cortactin in osteoclasts. J. Biol. Chem. 285: 29911-29924.
8. Katic, J., et al. 2014. Interaction of the cell adhesion molecule CHL1 with vitronectin, integrins, and the plasminogen activator inhibitor-2 promotes CHL1-induced neurite outgrowth and neuronal migration. J. Neurosci. 34: 14606-14623.

PROTOCOLS

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