

Integrin α Vla (1A10): sc-59970

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.

REFERENCES

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- Levy, L., Broad, S., Diekmann, D., Evans, R.D. and Watt, F.M. 2000. β 1 Integrins regulate keratinocyte adhesion and differentiation by distinct mechanisms. *Mol. Biol. Cell* 11: 453-466.

CHROMOSOMAL LOCATION

Genetic locus: ITGA6 (human) mapping to 2q31.1; Itga6 (mouse) mapping to 2 C2.

SOURCE

Integrin α Vla (1A10) is a mouse monoclonal antibody raised against a 28 amino acid synthetic peptide corresponding to the C-terminus of Integrin α Vla of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

Integrin α Vla (1A10) is recommended for detection of the cytoplasmic domain of non-phosphorylated Integrin α Vla of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of Integrin α Vla light chains: 30 kDa.

Molecular Weight of Integrin α Vla heavy chains: 120 kDa.

SELECT PRODUCT CITATIONS

- Xiao, X., Cheng, C.Y. and Mruk, D.D. 2013. Intercellular adhesion molecule-2 is involved in apical ectoplasmic specialization dynamics during spermatogenesis in the rat. *J. Endocrinol.* 216: 73-86.
- Luo, G., Li, F., Li, X., Wang, Z.G. and Zhang, B. 2018. TNF- α and RANKL promote osteoclastogenesis by upregulating RANK via the NF κ B pathway. *Mol. Med. Rep.* 17: 6605-6611.
- Goggins, B.J., Minahan, K., Sherwin, S., Soh, W.S., Pryor, J., Bruce, J., Liu, G., Mathe, A., Knight, D.A., Horvat, J.C., Walker, M. and Keely, S. 2021. Pharmacological HIF-1 stabilization promotes intestinal epithelial healing through regulation of α -integrin expression and function. *Am. J. Physiol. Gastrointest. Liver Physiol.* 320: G420-G438.

STORAGE

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

PROTOCOLS

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