bs-2095R **[Primary Antibody]**

Integrin alpha 1 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 3672 **SWISS:** P56199

Target: Integrin alpha 1

Immunogen: KLH conjugated synthetic peptide derived from human Integrin alpha 1: 1001-1179/1179.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Integrins are important extracellular matrix (ECM) receptor proteins located on cell surfaces. They are hetrodimers composed of an alpha and a beta transmembrane glycoprotein subunit. Around twenty two different integrins (different alpha/ beta subunit combinations) are found in nature. Integrins are generally present in high concentrations at the cell surface, but, unlike most other cell surface receptors, they bind ligands with very low affinity. Due to their weak individual binding, integrins need to cluster and bind in groups in order to effectively bind the ECM. Integrins bind many different ligands including laminin. Each integrin is made up of a large N terminal extracellular domain that binds the ECM ligand and a small C terminal cytoplasmic domain that mediates interaction with the actin cytoskeleton and signaling function. Alpha 1 integrin along with alpha 2, alpha L and alpha M has a unique inserted domain. Integrin alpha 1 is a receptor for laminin and collagen. The alpha1 subunit is also known as CD49a. CD49a associates with CD29 (beta 1 integrin), to form an alpha1 beta1 heterodimer, identified as the rat homologue to VLA1, which is involved in cellular adhesion to laminin and collagen.

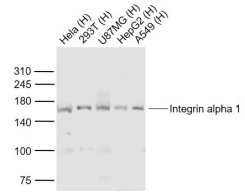
Applications: **WB** (1:500-2000)
Flow-Cyt (1μg /test)

Reactivity: Human, Rat (predicted: Mouse, Cow, Horse)

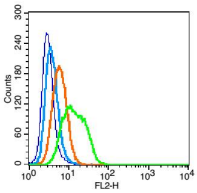
Predicted MW.: 128 kDa

Subcellular Location: Cell membrane

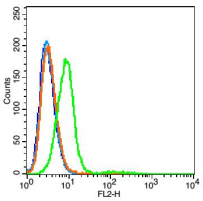
VALIDATION IMAGES



Sample: Lane 1: Hela (Human) Cell Lysate at 30 ug Lane 2: 293T (Human) Cell Lysate at 30 ug Lane 3: U87MG (Human) Cell Lysate at 30 ug Lane 4: HepG2 (Human) Cell Lysate at 30 ug Lane 5: A549 (Human) Cell Lysate at 30 ug Primary: Anti-Integrin alpha 1 (bs-2095R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 150 kD Observed band size: 160 kD



Blank control: U937(blue). Primary Antibody: Rabbit Anti- Integrin alpha 1 antibody(bs-2095R), Dilution: 1μg in 100 μL 1X PBS containing 0.5% BSA; Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions); Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA. Protocol The cells were fixed with 2% paraformaldehyde (10 min). Primary antibody (bs-2095R, 1μg /1x10^6 cells) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 1 0% goat serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min on



Blank control: RSC96 cells(blue). Primary Antibody: Rabbit Anti-Integrin alpha 1 antibody(bs-2095R), Dilution: 5μg in 100 μL 1X PBS containing 0.5% BSA; Isotype Control Antibody: Rabbit IgG (orange) ,used under the same conditions. Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

ice. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=4.85]** Yao Ding. et al. 1,25D/VDR inhibits pancreatic β cell ferroptosis by downregulating FOXO1 expression in diabetes mellitus. CELL SIGNAL. 2022 Dec;:110564 IF ;Rat. 36581217
- **[IF=5.1]** Zhu Yuan-Zheng. et al. Genome-wide search links senescence-associated secretory proteins with susceptibility for coronary artery disease in mouse and human. J GERONTOL A-BIOL. 2024 Feb;: IF,WB ;Mouse. 38416803
- **[IF=2.81]** Zhang, Rui, et al. "Rho/MRTF-A-Induced Integrin Expression Regulates Angiogenesis in Differentiated Multipotent Mesenchymal Stem Cells." Stem Cells International 2015 (2015). WB ;="Rat". 25949242
- **[IF=2.741]** Cui, Xiyao. et al. TMT-based proteomic analysis reveals integrins involved in the synergistic infection of reticuloendotheliosis virus and avian leukosis virus subgroup J. BMC VET RES. Bmc Vet Res. 2022 Dec;18(1):1-8 WB ;Chicken. 35379256