

Rabbit Anti-CD49a/ITGA1 Polyclonal: RC0039

Intended Use: For Research Use Only

Description: Integrins are heterodimeric cell surface receptors composed of noncovalently associated transmembrane α and β subunits that play a pivotal role in cell adhesion and migration, as well as in growth and survival. Integrins not only transmit signals to cells in response to the extracellular environment (outside-in signaling), but also sense intracellular cues to alter their interaction with the extracellular environment (inside-out signaling). Integrin $\alpha 1$ (CD49a, VLA-1, ITGA1) pairs with integrin $\beta 1$ to form an $\alpha 1\beta 1$ dimer on the cell surface. This integrin dimer plays important roles in colorectal cancer and pancreatic cancer cell proliferation, migration, and metastasis. The cytoplasmic tail of integrin $\alpha 1$ activates ERK and FAK/Src signaling to promote these biological processes. In immune systems, integrin $\alpha 1$ expression defines a tissue-resident cytotoxic T cell population contributing to both cancer immunity and vitiligo, an autoimmune disease.

Specifications

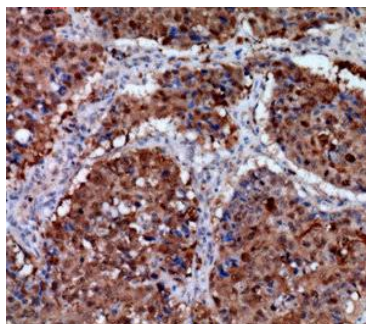
Clone: Polyclonal
 Source: Rabbit
 Isotype: IgG
 Reactivity: Human
 Immunogen: Synthetic peptide from human protein aa 920-980
 Localization: Membrane
 Formulation: Affinity purified antibody in PBS pH 7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC
 Package:

Description	Catalog No.	Size
CD49a/ITGA1 Polyclonal Concentrated	RC0039	1 ml

IHC Procedure*

Positive Control Tissue: Prostate, placenta , stomach
 Concentrated Dilution: 10-100
 Pretreatment: Tris EDTA pH 9.0, 15 min Pressure Cooker or 30-60 min water bath at 95°-99°C
 Incubation Time and Temp: Overnight @ 4°C
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human lung cancer stained with anti-CD49a using DAB

References:

- Human papillomavirus type 38 alters wild-type p53 activity to promote cell proliferation via the downregulation of integrin alpha 1 expression. Romero-Medina MC, et al. PLoS Pathog 16:e1008792, 2020.
- The reduction in CD8+PD-1+ T cells in liver histological tissue is related to Pegylated IFN-a therapy outcomes in chronic hepatitis B patients. Liu R, et al. BMC Infect Dis 20:590, 2020.