

Product Name: KD-Validated Integrin Alpha 5 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb00174

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 114.5kDa

Antigen Information

Gene Name	ITGA5
Alternative Names	CD49e; FNRA; Integrin, Alpha 5 (Fibronectin Receptor, Alpha Polypeptide); Fibronectin Receptor, Alpha Polypeptide; Fibronectin Receptor Subunit Alpha; CD49 Antigen-Like Family Member E; Integrin Alpha-5; Integrin Alpha-F; VLA-5; Very Late Activation Protein 5, Alpha Subunit; Fibronectin Receptor, Alpha Subunit; ITGA5/SLC9B1 Fusion; CD49e Antigen; VLA5A
Gene ID	3678.0
SwissProt ID	P08648
Immunogen	A synthesized peptide derived from human integrin alpha 5

Background

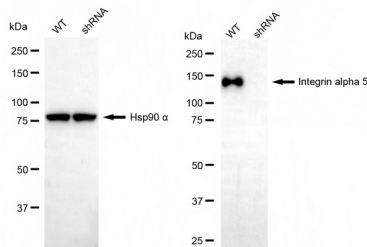
The product of this gene belongs to the integrin alpha chain family. Integrins are heterodimeric integral membrane proteins

composed of an alpha subunit and a beta subunit that function in cell surface adhesion and signaling. The encoded preproprotein is proteolytically processed to generate light and heavy chains that comprise the alpha 5 subunit. This subunit associates with the beta 1 subunit to form a fibronectin receptor. This integrin may promote tumor invasion, and higher expression of this gene may be correlated with shorter survival time in lung cancer patients. Note that the integrin alpha 5 and integrin alpha V subunits are encoded by distinct genes. [provided by RefSeq, Oct 2015]

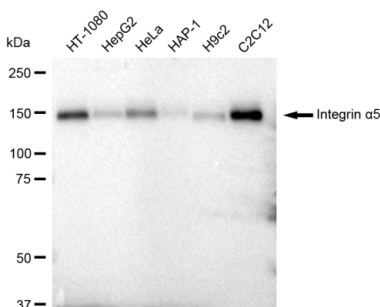
Research Area

Signal Transduction, Stem Cells

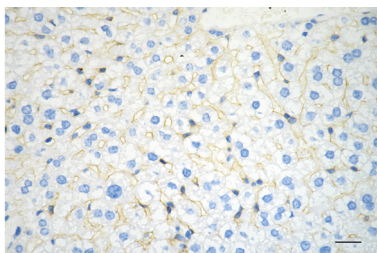
Image Data



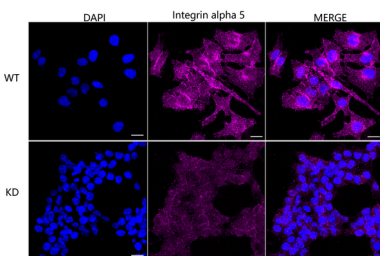
Western blotting analysis using integrin alpha 5 antibody (KVA00174). Integrin alpha 5 expression in wild type (WT) and integrin alpha 5 (ITGA5) shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with integrin alpha 5 antibody (KVA00174, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



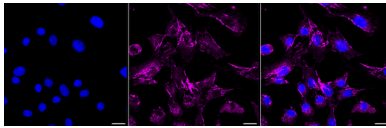
Western blotting analysis using Integrin alpha 5 antibody (KVA00174). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Integrin alpha 5 antibody (KVA00174, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody (APS0635, 1:10,000) respectively.



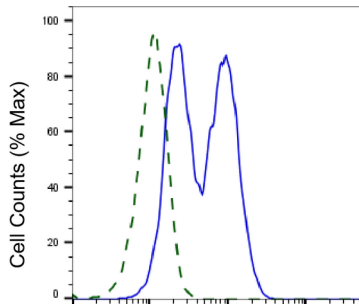
Immunohistochemistry was performed on paraffin-embedded mouse liver using integrin alpha 5 antibody (KVA00174, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HeLa cells using Integrin alpha 5 antibody (KVA00174, 1:1,000), Top panel: wild-type (WT); Bottom panel: Integrin alpha 5 shRNA knockdown (KD). Nuclei were stained blue with DAPI; Integrin alpha 5 was stained magenta with Alexa Fluor® 647. Scale bar: 20 µm. Permeabilization: Triton.

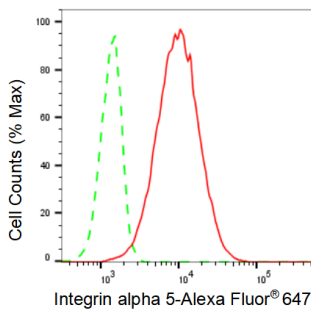


Immunocytochemical staining of C2C12 cells with Integrin alpha 5 antibody (KVA00174, 1:1,000). Nuclei were stained blue with DAPI; Integrin alpha 5 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



Integrin alpha 5-Alexa Fluor® 647

Validation of Integrin alpha 5 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Integrin alpha 5 antibody (KVA00174, 1:2,000) and analyzed using CytoFLEX.



Flow cytometric analysis of Integrin alpha 5 expression in C2C12 cells using Integrin alpha 5 antibody (KVA00174, 1:2,000). Green, isotype control; red, Integrin alpha 5.