

# KD-Validated Anti-Integrin alpha 5 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody Catalog # AGI2392

### **Specification**

Gene Name

### KD-Validated Anti-Integrin alpha 5 Rabbit Monoclonal Antibody - Product Information

Application WB, FC, ICC Primary Accession P08648

Reactivity Rat, Human, Mouse

Clonality Monoclonal Isotype Rabbit IgG

Calculated MW Predicted, 115 kDa; Observed, 150 kDa

KDa ITGA5

Aliases 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

Immunogen A synthesized peptide derived from human

integrin alpha 5

## KD-Validated Anti-Integrin alpha 5 Rabbit Monoclonal Antibody - Additional Information

Gene ID 3678

**Other Names** 

Integrin alpha-5, CD49 antigen-like family member E, Fibronectin receptor subunit alpha, Integrin alpha-F, VLA-5, CD49e, Integrin alpha-5 heavy chain, Integrin alpha-5 light chain, ITGA5 (<a href="http://www.genenames.org/cgi-bin/gene\_symbol\_report?hgnc\_id=6141" target="blank">HGNC:6141</a>), FNRA

## KD-Validated Anti-Integrin alpha 5 Rabbit Monoclonal Antibody - Protein Information

Name ITGA5 (HGNC:6141)

**Synonyms FNRA** 

#### **Function**

Integrin alpha-5/beta-1 (ITGA5:ITGB1) is a receptor for fibronectin and fibrinogen. It recognizes the sequence R-G-D in its ligands. ITGA5:ITGB1 binds to PLA2G2A via a site (site 2) which is distinct from the classical ligand-binding site (site 1) and this induces integrin conformational changes and enhanced ligand binding to site 1 (PubMed:<a href="http://www.uniprot.org/citations/18635536" target="\_blank">18635536</a>, PubMed:<a href="http://www.uniprot.org/citations/25398877"



target="\_blank">25398877</a>). ITGA5:ITGB1 acts as a receptor for fibrillin-1 (FBN1) and mediates R-G-D-dependent cell adhesion to FBN1 (PubMed:<a href="http://www.uniprot.org/citations/12807887" target="\_blank">12807887</a>, PubMed:<a href="http://www.uniprot.org/citations/17158881" target="\_blank">17158881</a>). ITGA5:ITGB1 acts as a receptor for fibronectin (FN1) and mediates R-G-D-dependent cell adhesion to FN1 (PubMed:<a href="http://www.uniprot.org/citations/33962943" target="\_blank">33962943</a>). ITGA5:ITGB1 is a receptor for IL1B and binding is essential for IL1B signaling (PubMed:<a href="http://www.uniprot.org/citations/29030430" target="\_blank">29030430</a>). ITGA5:ITGB3 is a receptor for soluble CD40LG and is required for CD40/CD40LG signaling (PubMed:<a href="http://www.uniprot.org/citations/31331973" target="\_blank">31331973</a>).

#### **Cellular Location**

Cell membrane; Single-pass type I membrane protein. Cell junction, focal adhesion

#### **Tissue Location**

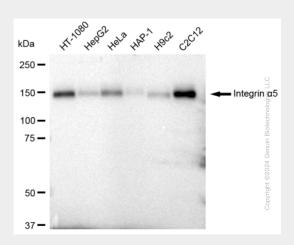
Expressed in placenta (at protein level).

### KD-Validated Anti-Integrin alpha 5 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

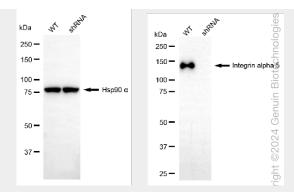
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## KD-Validated Anti-Integrin alpha 5 Rabbit Monoclonal Antibody - Images

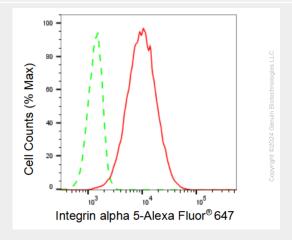


Western blotting analysis using anti-Integrin  $\alpha 5$  antibody (Cat#AGI2392). Total cell lysates (30  $\mu g$ ) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Integrin  $\alpha 5$  antibody (Cat#AGI2392, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody respectively.

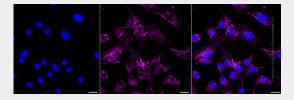




Western blotting analysis using anti-Integrin alpha 5 antibody (Cat#AGI2392). Integrin alpha 5 expression in wild type (WT) and Integrin alpha 5 shRNA knockdown (KD) HeLa cells with 30  $\mu$ g of total cell lysates.  $\beta$ -Tubulin serves as a loading control. The blot was incubated with anti-Integrin alpha 5 antibody (Cat#AGI2392, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody respectively.



Flow cytometric analysis of Integrin alpha 5 expression in C2C12 cells using Integrin alpha 5 antibody (Cat#AGI2392, 1:2,000). Green, isotype control; red, Integrin alpha 5.



Immunocytochemical staining of C2C12 cells with Integrin alpha 5 antibody (Cat#AGI2392, 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:  $20~\mu m$ .