

**ITGA5 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1336a****Specification**

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**ITGA5 Antibody - Product Information**

Application	WB, IHC, FC
Primary Accession	<a href="#">P08648</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Calculated MW	114kDa KDa

**Description**

The product of this gene belongs to the integrin alpha chain family. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This gene encodes the integrin alpha 5 chain. Alpha chain 5 undergoes post-translational cleavage in the extracellular domain to yield disulfide-linked light and heavy chains that join with beta 1 to form a fibronectin receptor. In addition to adhesion, integrins are known to participate in cell-surface mediated signalling. Integrin alpha 5 is a heterodimer that associates noncovalently with CD29/integrin beta 1 subunit to form the alpha-5-beta-1 very late antigen (VLA-5) complex. VLA-5 is a fibronectin receptor that is expressed on thymocytes, T-cells, monocytes and platelets. It is also found on very early B-cells and activated B-cells. VLA-5-mediated binding to fibronectin sends a costimulatory signal to T-cells and enhances Fc-gamma-R- and complement receptor-mediated phago-cytosis. It is also involved in monocyte migration into extracellular tissues.

**Immunogen**

Purified recombinant fragment of human ITGA5 expressed in E. Coli.

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**ITGA5 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, FNRA

**Dilution**

WB~~1/500 - 1/2000

IHC~~1/200 - 1/1000

FC~~1/200 - 1/400

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

ITGA5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**ITGA5 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

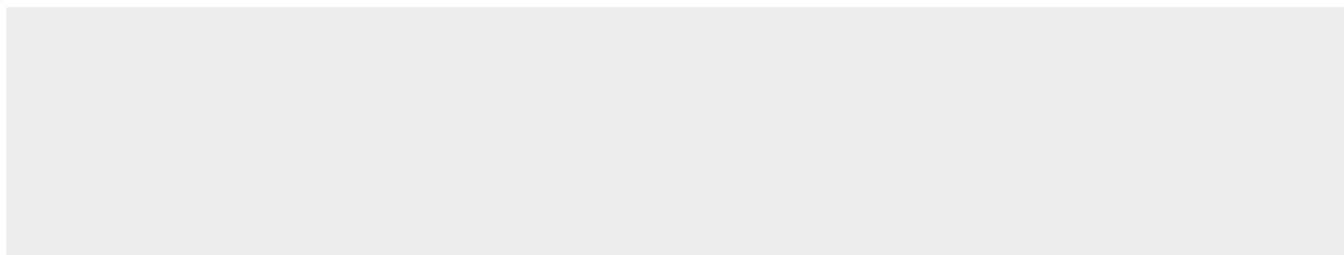
**Tissue Location**

Expressed in placenta (at protein level).

**ITGA5 Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**ITGA5 Antibody - Images**

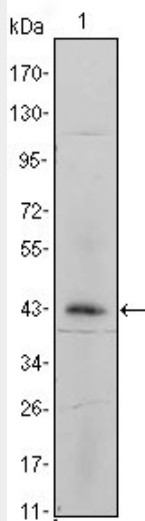


Figure 1: Western blot analysis using ITGA5 mouse mAb against ITGA5-hlgGfc transfected HEK293 cell lysate.

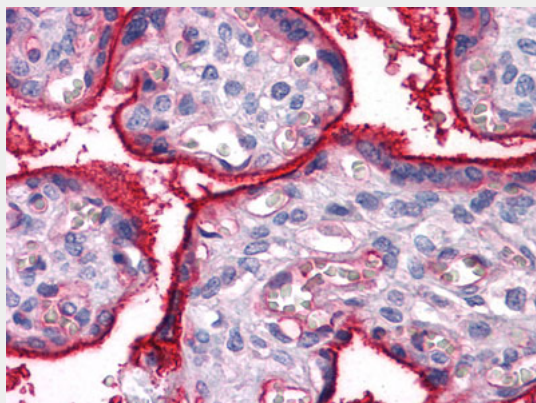


Figure 2: Immunohistochemical analysis of paraffin-embedded human Placenta tissues using ITGA5 mouse mAb

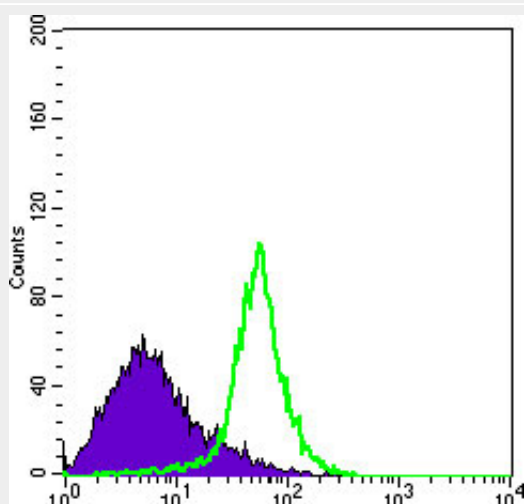


Figure 3: Flow cytometric analysis of Hela cells using ITGA5 mouse mAb (green) and negative control (purple).

#### ITGA5 Antibody - References

1. Proc Natl Acad Sci USA. 1993. 90(22):10553-7 2. J Cell Biol. 1998. 143(7):2081-92 3. Mol Biol Cell. 2000. 11(9):3109-21 4. J Cell Biol. 2001. 152(1):65-73 5. J Biol Chem. 2002. 277(22):19800-5