

ITGA5 Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO1336a

Product Information

Application	WB, IHC, FC, E
Primary Accession	P08648
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	10F6
Isotype	IgG2a
Calculated MW	114536
Description	<p>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.</p>
Immunogen	Purified recombinant fragment of human ITGA5 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

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 E~~N/A
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.

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: 18635536 , PubMed: 25398877). ITGA5:ITGB1 acts as a receptor for fibrillin-1 (FBN1) and mediates R-G-D-dependent cell adhesion to FBN1 (PubMed: 12807887 , PubMed: 17158881). ITGA5:ITGB1 acts as a receptor for fibronectin (FN1) and mediates R-G-D-dependent cell adhesion to FN1 (PubMed: 33962943). ITGA5:ITGB1 is a receptor for IL1B and binding is essential for IL1B signaling (PubMed: 29030430). ITGA5:ITGB3 is a receptor for soluble CD40LG and is required for CD40/CD40LG signaling (PubMed: 31331973).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell junction, focal adhesion
Tissue Location	Expressed in placenta (at protein level).

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

Images

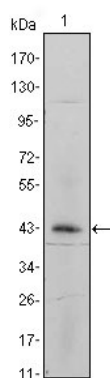


Figure 1: Western blot analysis using ITGA5 mouse mAb against ITGA5-hIgGfc transfected HEK293 cell lysate.

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

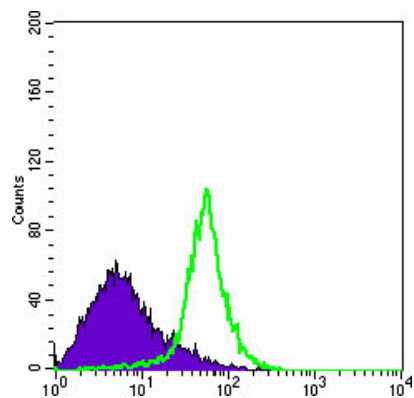
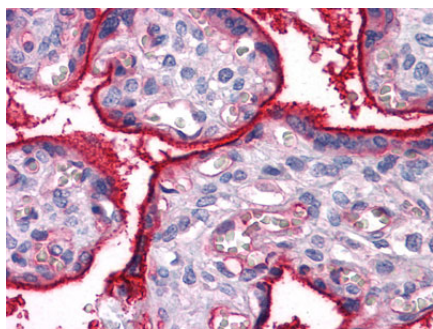


Figure 3: Flow cytometric analysis of Hela cells using ITGA5 mouse mAb (green) and negative control (purple).

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