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ITGA5 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12204c

Product Information

Application	WB, IHC-P, E
Primary Accession	P08648
Other Accession	P11688, NP_002196
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB20677
Calculated MW	114536
Antigen Region	575-602

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
Target/Specificity	This ITGA5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 575-602 amino acids from the Central region of human ITGA5.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ITGA5 Antibody (Center) 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).

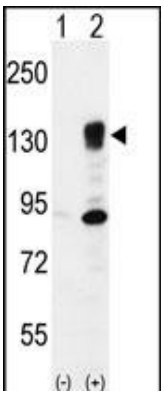
Background

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. [provided by RefSeq].

References

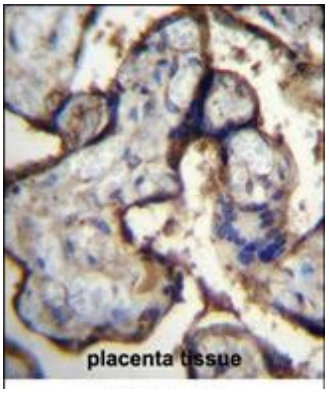
Hutton, M.L., et al. Infect. Immun. 78(11):4523-4531(2010)
Fang, Z., et al. J. Cell. Biochem. 110(5):1130-1141(2010)
Lobert, V.H., et al. Dev. Cell 19(1):148-159(2010)
Caicedo-Carvajal, C.E., et al. PLoS ONE 5 (7), E11830 (2010) :
Dingemans, A.M., et al. Mol. Cancer 9, 152 (2010) :

Images

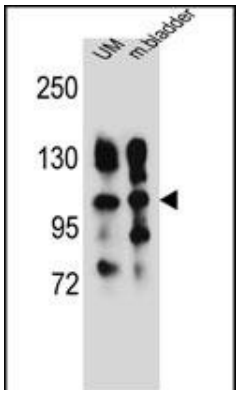


Western blot analysis of ITGA5 (arrow) using rabbit polyclonal ITGA5 Antibody (Center) (Cat. #AP12204c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the ITGA5 gene.

ITGA5 Antibody (Center) (Cat. #AP12204c)immunohistochemistry analysis in formalin fixed and paraffin embedded human placenta tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of ITGA5 Antibody (Center) for immunohistochemistry. Clinical relevance has not been



evaluated.



ITGA5 Antibody (Center) (Cat. #AP12204c) western blot analysis in human uterine tumor and mouse bladder tissue lysates (35ug/lane).This demonstrates the ITGA5 antibody detected the ITGA5 protein (arrow).

Citations

- Nanoparticle biointerfacing by platelet membrane cloaking.