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ITGB4 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO2304a

Specification

ITGB4 Antibody - Product Information

Application	**WB, IHC, FC, E**
Primary Accession	P16144
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**202kDa KDa**

Description
Integrins are heterodimers comprised of alpha and beta subunits, that are noncovalently associated transmembrane glycoprotein receptors. Different combinations of alpha and beta polypeptides form complexes that vary in their ligand-binding specificities. Integrins mediate cell-matrix or cell-cell adhesion, and transduced signals that regulate gene expression and cell growth. This gene encodes the integrin beta 4 subunit, a receptor for the laminins. This subunit tends to associate with alpha 6 subunit and is likely to play a pivotal role in the biology of invasive carcinoma. Mutations in this gene are associated with epidermolysis bullosa with pyloric atresia. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene.

Immunogen
Purified recombinant fragment of human ITGB4 (AA: 1619-1822) expressed in E. Coli.

Formulation
Ascitic fluid containing 0.03% sodium azide.

ITGB4 Antibody - Additional Information

Gene ID 3691

Other Names
Integrin beta-4, GP150, CD104, ITGB4

Dilution
WB~~1/500 - 1/2000
IHC~~1/200 - 1/1000
FC~~1/200 - 1/400
E~~1/10000

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
ITGB4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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ITGB4 Antibody - Protein Information

Name ITGB4

Function
Integrin alpha-6/beta-4 is a receptor for laminin. Plays a critical structural role in the hemidesmosome of epithelial cells. Is required for the regulation of keratinocyte polarity and motility. ITGA6:ITGB4 binds to NRG1 (via EGF domain) and this binding is essential for NRG1-ERBB signaling (PubMed:20682778). ITGA6:ITGB4 binds to IGF1 and this binding is essential for IGF1 signaling (PubMed:22351760). ITGA6:ITGB4 binds to IGF2 and this binding is essential for IGF2 signaling (PubMed:28873464).

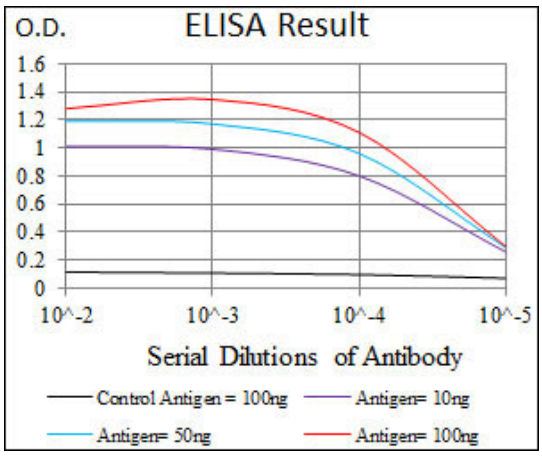
Cellular Location
Cell membrane; Single-pass type I membrane protein. Cell membrane; Lipid-anchor. Cell junction, hemidesmosome Note=Colocalizes with DST at the leading edge of migrating keratinocytes

Tissue Location
Integrin alpha-6/beta-4 is predominantly expressed by epithelia. Isoform beta-4D is also expressed in colon and placenta Isoform beta-4E is also expressed in epidermis, lung, duodenum, heart, spleen and stomach

ITGB4 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 Cytomety
- Cell Culture



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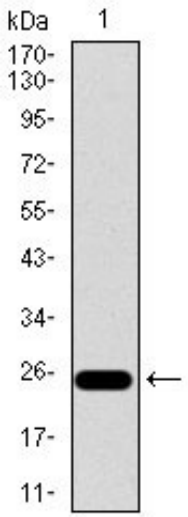

Figure 1: Western blot analysis using ITGB4 mAb against human ITGB4 recombinant protein. (Expected MW is 24 kDa)

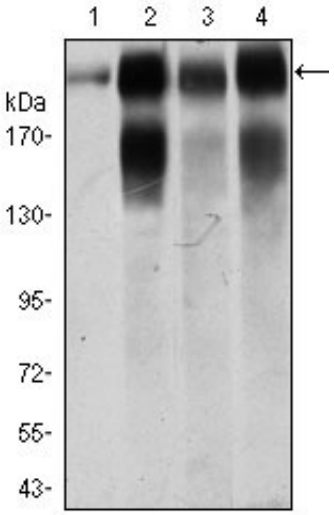

Figure 2: Western blot analysis using ITGB4 mouse mAb against A549 (1), A431 (2), MCF-7 (3) and SW620 (4) cell lysate.

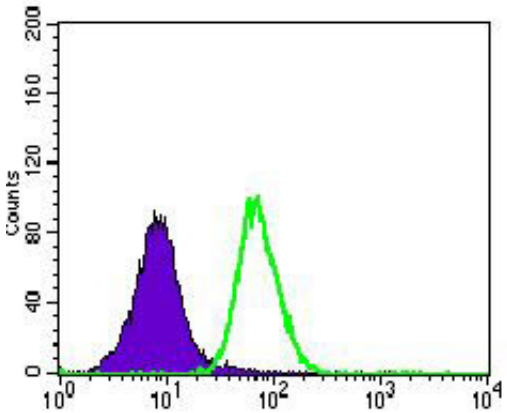

Figure 3: Flow cytometric analysis of A549 cells using ITGB4 mouse mAb (green) and negative control (purple).

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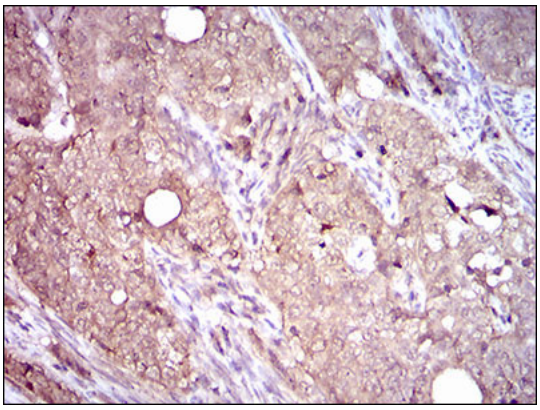

Figure 4: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using ITGB4 mouse mAb with DAB staining.

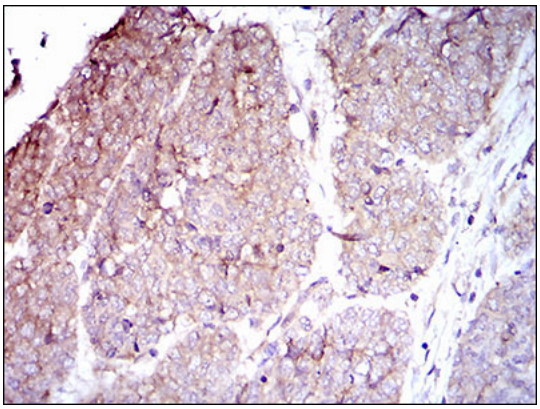

Figure 5: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using ITGB4 mouse mAb with DAB staining.

ITGB4 Antibody - References

1.PLoS One. 2012;7(4):e32060. 2.J Cell Biochem. 2010 Jun 1;110(3):718-24.