10320 Camino Santa Fe, Suite G
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Anti-Integrin Beta 4 Picoband Antibody
Catalog # ABO11732

Specification

Anti-Integrin Beta 4 Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	P16144
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Integrin beta-4(ITGB4) detection. Tested with WB, IHC-P in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Integrin Beta 4 Picoband Antibody - Additional Information

Gene ID 3691

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

Calculated MW
202167 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human

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

Tissue Specificity
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.

Protein Name
Integrin beta-4

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human Integrin beta 4 recombinant protein (Position: N28-A266). Human Integrin

beta 4 shares 88% and 86% amino acid (aa) sequences identity with mouse and rat Integrin beta 4, respectively.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the integrin beta chain family.

Anti-Integrin Beta 4 Picoband 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

Anti-Integrin Beta 4 Picoband 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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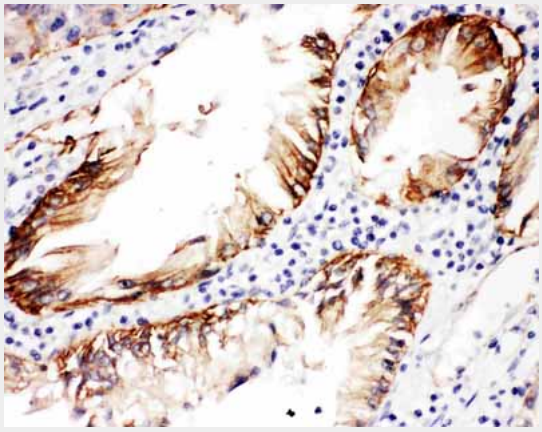
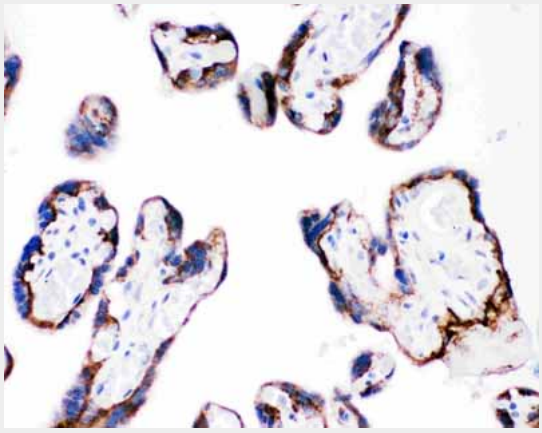
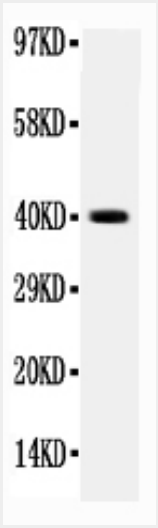
Anti-Integrin Beta 4 Picoband Antibody - Images



Anti-Integrin beta 4 Picoband antibody, ABO11732-1.JPGIHC(P): Human Intestinal Cancer Tissue



Anti-Integrin beta 4 Picoband antibody, ABO11732-2.JPGIHC(P): Human Placenta Tissue



Anti-Integrin beta 4 Picoband antibody, ABO11732-3.jpgAll lanes: Anti-ITGB4(ABO11732) at 0.5ug/mlWB: Recombinant Human Integrin beta4 Protein 0.5ngPredicted bind size: 40KDObserved bind size: 40KD

Anti-Integrin Beta 4 Picoband Antibody - Background

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ITGB4(Integrin, beta-4), also known as CD104 (Cluster of Differentiation 104), is a human gene. The gene encodes the integrin beta 4 subunits, a receptor for the laminins. This subunit tends to associate with alpha 6 subunits and is likely to play a pivotal role in the biology of invasive carcinoma. The ITGB4 gene is mapped on 17q25.1. Using expression profiling, Yang et al. found that ITGB4 was upregulated 6-fold by ZKSCAN3 in transfected human colon cancer cells compared with parental cells. They confirmed that ZKSCAN3 bound the promoter of ITGB4 in vitro and in vivo. ITGB4 knockdown by short hairpin RNA countered ZKSCAN3-augmented anchorage-independent colony formation in the colon cancer cell lines. The integrin beta-4 subunit is characterized by an unusually long cytoplasmic domain that harbors 4 fibronectin type III (FNIII) repeats, residing in 2 pairs separated by a connecting segment. Vidal et al. found compound heterozygosity for mutations in the ITGB4 gene in an infant with junctional epidermolysis bullosa associated with pyloric atresia.