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ITGB4/CD104 Rabbit pAb

Catalog # AP99209

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P16144
Other Accession	P16144
Reactivity	Human, Mouse
Predicted	Rat, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	202167
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ITGB4
Epitope Specificity	131-200/1822
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the integrin beta chain family.Contains 1 Calx-beta domain.Contains 4 fibronectin type-III domains.Contains 1 PSI domain.Contains 1 VWFA domain.
SUBUNIT	Heterodimer of an alpha and a beta subunit. Beta-4 associates with alpha-6. Interacts (via cytoplasmic region) with COL17A1 (via cytoplasmic region). Interacts (via cytoplasmic region) with DST isoform 3 (via N-terminus). Interacts (via cytoplasmic domain) with DST (via N-terminus). Interacts with RAC1.
DISEASE	Defects in ITGB4 are a cause of epidermolysis bullosa letalis with pyloric atresia (EB-PA) [MIM:226730]; also known as junctional epidermolysis bullosa with pyloric atresia (PA-JEB) or aplasia cutis congenita with gastrointestinal atresia. EB-PA is an autosomal recessive, frequently lethal, epidermolysis bullosa with variable involvement of skin, nails, mucosa, and with variable effects on the digestive system. It is characterized by mucocutaneous fragility, aplasia cutis congenita, and gastrointestinal atresia, which most commonly affects the pylorus. Pyloric atresia is a primary manifestation rather than a scarring process secondary to epidermolysis bullosa. Defects in ITGB4 are a cause of generalized atrophic benign epidermolysis bullosa (GABEB) [MIM:226650]. GABEB is a non-lethal, adult form of junctional epidermolysis bullosa characterized by life-long blistering of the skin, associated with hair and tooth abnormalities.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	3691
Other Names	CD104; GP150; JEB5A; JEB5B; C230078O20; ITB4_HUMAN; ITGB4; ITB4_MOUSE; ITB4_RAT; integrin subunit beta 4; integrin, beta 4
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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

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