

Datasheet for ABIN968433

anti-Integrin beta 4 antibody (AA 1612-1821)

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Overview

Quantity:	50 µg
Target:	Integrin beta 4 (ITGB4)
Binding Specificity:	AA 1612-1821
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Integrin beta 4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human Integrin beta4 aa. 1612-1821
Clone:	7-CD104
Isotype:	IgG1
Characteristics:	<ol style="list-style-type: none"> 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 3. Source of all serum proteins is from USDA inspected abattoirs located in the United States. 4. Please refer to us for technical protocols.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	Integrin beta 4 (ITGB4)
Alternative Name:	CD104 (ITGB4 Products)
Background:	<p>Cell adhesion to extracellular matrix components or to cell surface proteins, especially those expressed by leukocytes and endothelial cells, is mediated by integrins. Integrins contain noncovalently associated alpha and beta subunits. At least 17 alpha and 8 beta subunits have been identified and these proteins can heterodimerize to form 22 different receptors. The alpha6beta4 integrin is a receptor for various laminins and binds with the highest affinity to laminins 4 and 5. It exhibits elevated expression in the basal cell layer of stratified epithelia, in Schwann cells at the onset of myelination, and in CD4-CD8- pre-T lymphocytes entering the thymus. In addition, alpha6beta4 expression is increased in squamous carcinomas where it promotes invasion through a targeting of PI3 kinase activity. The majority of beta4 comprises a cytoplasmic domain with unique signaling properties. The C-terminal portion of this domain contains two pairs of type III fibronectin-like motifs (FNIII) and a tyrosine activation motif (TAM). Additional domains in the cytoplasmic tail bind Shc and activate the MAPK pathway. Thus, integrin beta4 is an integrin subunit that is important for cell survival, growth, and differentiation. This antibody is routinely tested by western blot analysis.</p> <p>Synonyms: Integrin beta4</p>
Molecular Weight:	200 kDa
Pathways:	Integrin Complex

Application Details

Comment:	Related Products: ABIN968533, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Storage: -20 °C

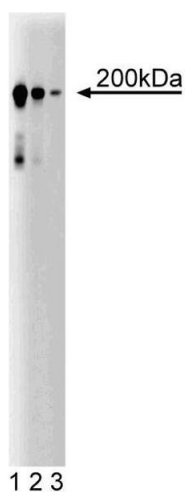
Storage Comment: Store undiluted at -20° C.

Publications

Product cited in: Shaw, Rabinovitz, Wang, Toker, Mercurio: "Activation of phosphoinositide 3-OH kinase by the alpha6beta4 integrin promotes carcinoma invasion." in: **Cell**, Vol. 91, Issue 7, pp. 949-60, (1998) ([PubMed](#)).

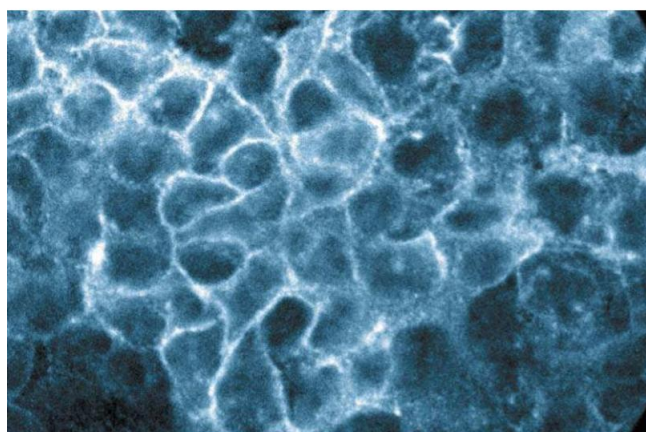
Mainiero, Pepe, Wary, Spinardi, Mohammadi, Schlessinger, Giancotti: "Signal transduction by the alpha 6 beta 4 integrin: distinct beta 4 subunit sites mediate recruitment of Shc/Grb2 and association with the cytoskeleton of hemidesmosomes." in: **The EMBO journal**, Vol. 14, Issue 18, pp. 4470-81, (1995) ([PubMed](#)).

Images



Western Blotting

Image 1. Western blot analysis of CD104 (Integrin beta4) on a A431 cell lysate (Human epithelial carcinoma, ATCC CRL-1555). Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the anti-human CD104 antibody.



Immunofluorescence

Image 2. Immunofluorescence staining of A431 cells (Human epithelial carcinoma, ATCC CRL-1555).