Datasheet for ABIN968314

anti-CD51 antibody (AA 609-722)

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Overview

Quantity:	50 µg
Target:	CD51 (ITGAV)
Binding Specificity:	AA 609-722
Reactivity:	Human, Mouse, Rat, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD51 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human CD51/VNRalpha aa. 609-722
Clone:	21-CD51
Isotype:	IgG1 kappa
Cross-Reactivity:	Rat (Rattus), Dog (Canine), Mouse (Murine)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Source of all serum proteins is from USDA inspected abattoirs located in the United States. 4. 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.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

	chromatography.

Target Details

Target:	CD51 (ITGAV)
Alternative Name:	CD51 (ITGAV Products)
Background:	Integrins are a family of proteins that mediate intercellular adhesion or adherence to extracellular matrix proteins. Their roles are essential for embryonic development, tumor metastasis, organ function, and proper immune cell function. Family members are heterodimers that contain a larger alpha subunit that is unique to each individual receptor and a smaller beta subunit that can be shared by several receptors. Based on beta subunit content, integrins are divided into the subfamilies beta1, beta2, and beta3. The beta3 subfamily contains the vitronectin receptor (alphaVbeta3) and the platelet protein gpIIb/IIIa. The alpha chain of the vitronectin receptor (VNRalpha, CD51, integrin alphaV) has been reported to consist of a disulfide-linked large extracellular (125 kDa) subunit and a smaller (25 kDa) membrane-anchored subunit. The large subunit contains multiple sequences with homology to calcium-binding sites in other proteins and an RGD-dependent ligand-binding site, while the small subunit contains a transmembrane domain and a short cytoplasmic domain. VNRalpha has been reported to be noncovalently associated with the VNR beta3-chain (CD61, gpIIIa). The VNR mediates cell adhesion to RGD-containing ligands such as vitronectin, von Willebrand factor, fibrinogen, and thrombospondin. This antibody is routinely tested by western blot analysis. Synonyms: Integrin alphaV, Vitronectin Receptor alpha, VNRalpha
Molecular Weight:	125 kDa
Pathways:	Cell-Cell Junction Organization, Signaling Events mediated by VEGFR1 and VEGFR2, Growth Factor Binding, Integrin Complex

Application Details

Comment:	Related Products: ABIN968545, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid

Handling

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.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

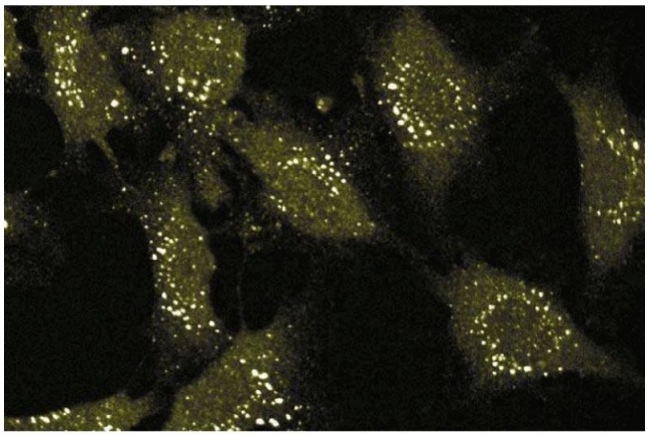
Publications

Product cited in:

Bodary, McLean: "The integrin beta 1 subunit associates with the vitronectin receptor alpha v subunit to form a novel vitronectin receptor in a human embryonic kidney cell line." in: **The Journal of biological chemistry**, Vol. 265, Issue 11, pp. 5938-41, (1990) (PubMed).

Suzuki, Argraves, Arai, Languino, Pierschbacher, Ruoslahti: "Amino acid sequence of the vitronectin receptor alpha subunit and comparative expression of adhesion receptor mRNAs." in: **The Journal of biological chemistry**, Vol. 262, Issue 29, pp. 14080-5, (1987) (PubMed).

Suzuki, Argraves, Pytela, Arai, Krusius, Pierschbacher, Ruoslahti: "cDNA and amino acid sequences of the cell adhesion protein receptor recognizing vitronectin reveal a transmembrane domain and homologies with other adhesion protein receptors." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 83, Issue 22, pp. 8614-8, (1986) (PubMed).



Immunofluorescence

Image 1. Immunofluorescence staining of human endothelial cells.

Western Blotting

Image 2. Western blot analysis of CD51 (Integrin alphaV) on a rat cerebrum lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the anti-CD51 antibody.