

Datasheet for ABIN2689326

anti-CD51 antibody

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Overview

Quantity:	0.1 mg
Target:	CD51 (ITGAV)
Reactivity:	Mouse
Host:	Rat
Clonality:	Monoclonal
Conjugate:	This CD51 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Immunoprecipitation (IP), Blocking Reagent (BR)

Product Details

Brand:	BD Pharmingen™
Immunogen:	Mouse (BALB/c) IL-2-activated killer (LAK) Cells
Clone:	RMV
Isotype:	IgG1 kappa
Characteristics:	The rat anti-mouse CD51 (clone RMV-7) antibody reacts with the 140 kDa integrin αV chain. Heterodimers of CD51 with several integrin β chains function as receptors for extracellular matrix proteins. CD51/CD61 (αVβ3 integrin, vitronectin receptor) mediates adhesion to fibronectin, fibrinogen, vitronectin, thrombospondin, von Willebrand factor, and CD31 (PECAM-1). It has been reported to be expressed on activated T lymphocytes, polymorphonuclear granulocytes, blastocysts, and osteoclasts. CD51 has reportedly been found to be undetectable on mouse platelets using either antibody clones H9.2B8 or RMV-7. CD51 also forms heterodimers with CD29 (integrin β1), integrins β5, β6, and β8 chains. αV integrins have diverse

Product Details

functions in development and homeostasis. The rat anti-mouse (clone RMV-7) mAb has been reported to block LAK-cell binding to vitronectin, fibronectin, fibrinogen, and CD31. Furthermore, the RMV-7 clone reportedly inhibits LAK-cell cytotoxicity against certain target cells by interfering with the binding of LAK cells to their target cells. This antibody is routinely tested by flow cytometric analysis. Other applications were tested during antibody development only or reported in the literature. Expression of CD51 on mouse bone marrow myeloid cells. C57BL/6 bone marrow leukocytes were stained with either purified rat IgG1 κ isotype control mAb R3-34 (Cat. No. 553922, left panel) or purified rat anti-mouse CD51 (clone RMV-7) (right panel), followed by PE-conjugated goat anti-rat Ig (Cat. No. 550767, both panels). Flow cytometry was performed on a BD FACScan™ instrument. Please note that the population of cells having the lowest SSC (erythroid and lymphoid) show little expression of CD51, while cells with moderate-to-high SSC (myeloid cells) are almost uniformly CD51 positive (right panel).

BD Pharmingen™ Purified Rat Anti-Mouse CD51 - Purified - Clone RMV-7 - Isotype Rat IgG1, κ - Reactivity Ms - 0.1 mg

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
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Target Details

Target:	CD51 (ITGAV)
Alternative Name:	CD51 (ITGAV Products)
Background:	Synonyms: Integrin α V chain
Pathways:	Cell-Cell Junction Organization, Signaling Events mediated by VEGFR1 and VEGFR2, Growth Factor Binding, Integrin Complex

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤ 0.09 % sodium azide.

Handling

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:	4 °C
Storage Comment:	Store undiluted at 4°C.

Publications

Product cited in:	Nakamura, Pilkington, Lakkakorpi, Lipfert, Sims, Dixon, Rodan, Duong: "Role of alpha(v)beta(3) integrin in osteoclast migration and formation of the sealing zone." in: Journal of cell science, Vol. 112 (Pt 22), pp. 3985-93, (2000) (PubMed). Bader, Rayburn, Crowley, Hynes: "Extensive vasculogenesis, angiogenesis, and organogenesis precede lethality in mice lacking all alpha v integrins." in: Cell, Vol. 95, Issue 4, pp. 507-19, (1998) (PubMed). Piali, Hammel, Uherek, Bachmann, Gisler, Dunon, Imhof: "CD31/PECAM-1 is a ligand for alpha v beta 3 integrin involved in adhesion of leukocytes to endothelium." in: The Journal of cell biology, Vol. 130, Issue 2, pp. 451-60, (1995) (PubMed). Moulder, Roberts, Shevach, Coligan: "The mouse vitronectin receptor is a T cell activation antigen." in: The Journal of experimental medicine, Vol. 173, Issue 2, pp. 343-7, (1991) (PubMed).
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