ARG23099
anti-CD51 + CD61 (Integrin alpha V + Integrin beta 3) complex antibody [23C6]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [23C6] recognizes CD51 + CD61 (Integrin alpha V + Integrin beta 3) complex.
Tested Reactivity	Hu, Chk
Species Does Not React With	Bov, Pig, Rb
Tested Application	CyTOF®-candidate, FACS, IHC-Fr, IP
Specificity	The CD51 + CD61 (Integrin alpha V + Integrin beta 3) complex antibody clone 23C6 recognizes the intact complex formed between the CD51 and CD61 molecules (alpha V and beta 3 integrins).
Host	Mouse
Clonality	Monoclonal
Clone	23C6
Isotype	IgG1
Target Name	CD51 + CD61 (Integrin alpha V + Integrin beta 3)
Species	Human
Immunogen	Osteoclasts from osteoclastomas.
Conjugation	Un-conjugated
Alternate Names	CD51; VNRA; CD antigen CD51; VTNR; Vitronectin receptor subunit alpha; Integrin alpha-V; MSK8; GT; CD antigen CD61; CD61; BDPLT2; GPIIIa; BDPLT16; GP3A; Platelet membrane glycoprotein IIIa; Integrin beta-3

Application Instructions

Application table

Application	Dilution
CyTOF®-candidate	Assay-dependent
FACS	1:40 - 1:80
IHC-Fr	Assay-dependent
IP	Assay-dependent

Application Note

IHC-Fr: The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Arigo recommends the use of acetone fixation for frozen sections.
FACS: Use 10 µl of the suggested working dilution to label 10^6 cells in 100 µl.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS and 0.09% Sodium azide
Preservative	0.09% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	ITGAV; ITGB3
Gene Full Name	Integrin alpha V (CD51) Integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61)
Background	Integrin alpha V (CD51) is a protein that is a member of the integrin superfamily. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This protein undergoes post-translational cleavage to yield disulfide-linked heavy and light chains that combine with multiple integrin beta chains to form different integrins. This protein has been shown to heterodimerize with beta 1, beta 3, beta 5, beta 6, and beta 8; the heterodimer of alpha v and beta 3 is the Vitronectin receptor. This protein interacts with several extracellular matrix proteins to mediate cell adhesion and may play a role in cell migration. It is proposed that this protein may regulate angiogenesis and cancer progression. Alternative splicing results in multiple transcript variants that encode different protein isoforms. Note that the integrin alpha 5 and integrin alpha V chains are produced by distinct genes. [provided by RefSeq, Jan 2015] The ITGB3 protein product is the integrin beta chain beta 3. Integrins are integral cell-surface proteins composed of an alpha chain and a beta chain. A given chain may combine with multiple partners resulting in different integrins. Integrin beta 3 is found along with the alpha IIb chain in platelets. Integrins are known to participate in cell adhesion as well as cell-surface mediated signalling. [provided by RefSeq, Jul 2008]
Function	The alpha-V (ITGAV) integrins are receptors for vitronectin, cytotactin, fibronectin, fibrinogen, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin and vWF. They recognize the sequence R-G-D in a wide array of ligands. In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions. [UniProt] Integrin alpha-V/beta-3 (ITGAV:ITGB3) is a receptor for cytotactin, fibronectin, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin, vitronectin and von Willebrand factor. Integrin alpha-IIb/beta-3 (ITGA2B:ITGB3) is a receptor for fibronectin, fibrinogen, plasminogen, prothrombin, thrombospondin and vitronectin. Integrins alpha-IIb/beta-3 and alpha-V/beta-3 recognize the sequence R-G-D in a wide array of ligands. Integrin alpha-IIb/beta-3 recognizes the sequence H-H-L-G-G-G-A-K-Q-A-G-D-V in fibrinogen gamma chain. Following activation integrin alpha-IIb/beta-3 brings about platelet/platelet interaction through binding of soluble fibrinogen. This step leads to rapid platelet aggregation which physically plugs ruptured endothelial surface. Fibrinogen binding enhances SELP expression in activated platelets (By similarity). In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions. [UniProt]
Highlight	Related products: CD51 antibodies; Anti-Mouse IgG secondary antibodies; Related news: CyTOF-candidate Antibodies
Calculated Mw	CD51: 116 kDa CD61: 87 kDa
PTM	integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61): Phosphorylated on tyrosine residues in response to thrombin-induced platelet aggregation. Probably involved in outside-in signaling. A peptide (AA 740-762) is capable of binding GRB2 only when both Tyr-773 and Tyr-785 are phosphorylated. Phosphorylation of Thr-779 inhibits SHC binding.