PE anti-human CD51 Antibody

Catalog# / Size	327909 / 25 tests 327910 / 100 tests
Clone	NKI-M9
Workshop	IV 103
Other Names	Vitronectin receptor α chain, Integrin αV, αV integrin, ITGAV
Isotype	Mouse IgG2a, κ
Description	CD51 is a type I integral membrane glycoprotein, known as vitronectin receptor α chain, or integrin α_V. It forms heterodimer with integrin β1 (CD29), β3 (CD61), β5, β6, or β8. CD51 contains two disulfide-linked subunits of 125 kD and 24 kD, and is expressed on endothelial cells, fibroblasts, macrophages, platelets, osteoclasts, neuroblastoma, melanoma, and hepatoma cells. Many extracellular matrix proteins with RGD-motifs are CD51 ligands. In association with its β chains, CD51 binds vitronectin, von Willebrand factor, fibronectin, thrombospondin, osteopontin, fibrinogen, and laminin. CD51, as an adhesion molecule, plays important roles in leukocytes homing and rolling, mediates bone absorption and angiogenesis.

Product Details

Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Melonama cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
Concentration	Lot-specific (please contact technical support for concentration and total µg amount, or use our Lookup tool if you have a lot number.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze**.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application References **(PubMed link indicates BioLegend citation)**	1. Knapp W, et al. Eds. 1989. Leucocyte Typing IV. Oxford University Press. New York. 2. Defilippi P, et al. 1991. J. Cell Biol. 114:855. PubMed 3. Burdick MM, et al. 2003. Am. J. Physiol.Cell Ph. 284:C977. PubMed 4. Grzeszkiewicz TM, et al. 2001. J. Biol. Chem. 276:21943. 5. Sonnenberg A, et al. 1990. J. Cell Biol. 110:2145. PubMed 6. Silverman AP, et al. 2008. J Mol Biol. 385:1064. PubMed 7. Khurana S, et al. 2013. Blood. 121:2587. PubMed
Product Citations	1. Yu Y, et al. 2017. Stem Cell Reports. 10.1016/j.stemcr.2017.07.016. PubMed 2. Sui X, et al. 2018. Cell Death Dis. 9:523. PubMed 3. Elena R Andreeva et al. 2017. Journal of cellular physiology. 233(2):1535-1547 . PubMed
RRID	AB_940561 (BioLegend Cat. No. 327909) AB_940564 (BioLegend Cat. No. 327910)

Antigen Details

Structure	Integrin, forms heterodimer with integrin β1 (CD29), β3 (CD61), β5, β6, or β8, 125 kD and 24 kD in reduced condition, 150 kD (unreduced)
Distribution	Endothelial cells, fibroblasts, macrophages, platelets, osteoclasts, neuroblastoma, melanoma, and hepatoma cells.
Function	Adhesion, angiogenesis
Ligand/Receptor	Vitronectin, von Willebrand factor, fibrinogen, thrombospondin, osteopontin, denatured collagen, fibronectin, laminin.
Cell Type	Endothelial cells, Fibroblasts, Macrophages, Mesenchymal Stem Cells, Osteoclasts, Platelets
Biology Area	Angiogenesis, Cell Adhesion, Cell Biology, Costimulatory Molecules, Immunology, Stem Cells
Molecular Family	CD Molecules
Antigen References	1. Nesbitt S, et al. 1993. J. Biol. Chem. 268:16737. 2. Zola H, et al. 2007. Leukocyte and Stromal Cell Molecules:The CD Markers Wiley-Liss A John Wiley & Sons Inc, Publication
Gene ID	3685

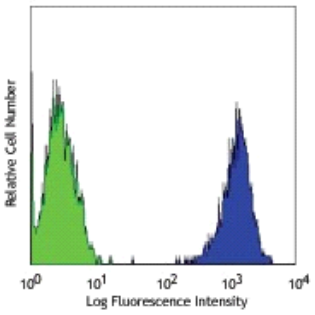
Related Protocols

Cell Surface Flow Cytometry Staining Protocol

Other Formats

Purified anti-human CD51, Biotin anti-human CD51, FITC anti-human CD51, Ultra-LEAF™ Purified anti-human CD51, APC anti-human CD51, PE/Cyanine7 anti-human CD51

Product Data



Human melanoma cell line M21 stained with NKI-M9 PE

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