Antibodies

Anti-Human CD51 Antibody, Clone NKI-M9

Mouse monoclonal IgG2a antibody against human CD51 (integrin αV), unconjugated

Catalog #60043

100 µg 0.5 mg/mL

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Product Description

The NKI-M9 antibody reacts with CD51 (vitronectin receptor α chain, or integrin αV), a type I transmembrane glycoprotein containing two subunits (125 kDa and 24 kDa) which are generated by post-translational cleavage and are linked by a disulfide bond. CD51 associates non-covalently with integrin β1 (CD29), β3 (CD61), β5, β6, or β8 to form heterodimeric cell adhesion receptors for extracellular matrix components such as fibrinogen, collagen, fibronectin, laminin, osteopontin, thrombospondin, vitronectin and von Willebrand factor. For example, association of CD51 and CD61 forms the integrin αv/β3 receptor primarily involved in binding vitronectin. In addition to mediating adhesion and cytoskeletal organization, CD51-containing integrins have roles in signal transduction and thereby modulate processes such as cell proliferation, differentiation and migration. Both ligand binding and ligand-induced receptor clustering are necessary for initiating integrin-mediated responses. CD51 is expressed broadly on many types of cells, including endothelial cells, fibroblasts, monocytes, macrophages, platelets (at relatively low levels) and osteoclasts. It is also found on hepatoma, melanoma and neuroblastoma cells.

Target Antigen Name:	CD51 (Integrin αV)
Alternative Names:	Integrin αV, αV integrin, Vitronectin receptor α chain,
Gene ID:	3685
Species Reactivity:	Human
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	NKI-M9
Isotype:	IgG2a, kappa
Immunogen:	Human melanoma cells
Conjugate:	Unconjugated

Applications

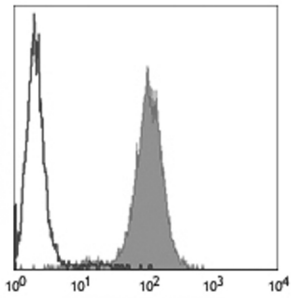
Verified:	FC
Reported:	ELISA, FA, FC, IP
Special Applications:	This antibody clone has been verified for labeling human mesenchymal cells grown in MesenCult™ Proliferation Kit (Human; Catalog #05411) and MesenCult™-XF Medium (Catalog #05420).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please request a lot-specific Certificate of Analysis from techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 2.0 µg per 1 x 10e6 cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application. Clone NKI-M9 is reportedly not suitable for IHC with paraffin-embedded sections.

Data



CD51 FITC

Flow cytometry analysis of human M21 melanoma cells labeled with Anti-Human CD51 Antibody, Clone NKI-M9, followed by anti-mouse IgG, FITC (filled histogram) or a mouse IgG2a, kappa isotype control antibody followed by anti-mouse IgG, FITC (open histogram).

Related Products

PRODUCT NAME	CATALOG #	SIZE
Anti-Human CD51 Antibody, Clone NKI-M9	60043	100 µg
Anti-Human CD51 Antibody, Clone NKI-M9, PE	60043PE	100 tests
Anti-Human CD51 Antibody, Clone NKI-M9, PE	60043PE.1	25 tests
Anti-Human CD51 Antibody, Clone NKI-M9, FITC	60043FI	100 tests
Anti-Human CD51 Antibody, Clone NKI-M9, FITC	60043FI.1	25 tests

References

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