

## Anti-Human CD51 Antibody, Clone NKI-M9, PE



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## Antibodies

Mouse monoclonal IgG2a antibody  
against human CD51 (integrin  $\alpha$ V),  
PE-conjugated

Catalog #60043PE  
#60043PE.1

100 Tests 5  $\mu$ L/test  
25 Tests 5  $\mu$ L/test

## Product Description

The NKI-M9 antibody reacts with CD51 (vitronectin receptor  $\alpha$  chain, or integrin  $\alpha$ V), 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  $\beta$ 1 (CD29),  $\beta$ 3 (CD61),  $\beta$ 5,  $\beta$ 6, or  $\beta$ 8 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  $\alpha$ V/ $\beta$ 3 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 $\alpha$ V)
Alternative Names:	$\alpha$ V integrin, integrin $\alpha$ V, vitronectin receptor $\alpha$ chain
Gene ID:	3685
Species Reactivity:	Human
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	NKI-M9
Isotype:	IgG2a, kappa
Immunogen:	Human melanoma cells
Conjugate:	PE

## Applications

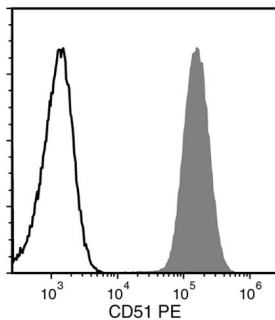
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for labeling human mesenchymal cells grown in MesenCult™ Proliferation Kit (Human; Catalog #05411) and MesenCult™-XF Medium (Catalog #05420).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

## Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) bovine serum albumin
Purification:	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact <a href="mailto:techsupport@stemcell.com">techsupport@stemcell.com</a> .
Directions for Use:	For flow cytometry the suggested use of this antibody is 5 $\mu$ L per $1 \times 10^6$ cells in 100 $\mu$ L volume or per 100 $\mu$ L of whole blood. It is recommended that the antibody be titrated for optimal performance for each application.

## Data



Flow cytometry analysis of human HT1080 fibrosarcoma cells labeled with Anti-Human CD51 Antibody, Clone NKI-M9, PE (filled histogram) or a mouse IgG2a, kappa PE isotype control antibody (solid line histogram).

## Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at [www.stemcell.com/antibodies](http://www.stemcell.com/antibodies) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

## References

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