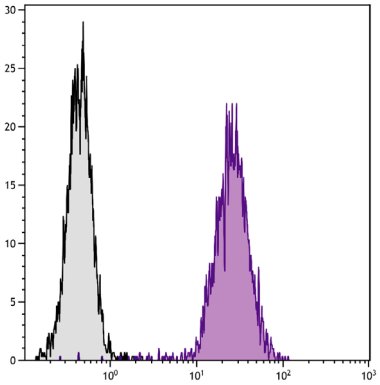
SouthernBiotech

Mouse Anti-Human CD51

Cat. No.	Format	Size
9656-01	Purified (UNLB)	0.1 mg
9656-02	Fluorescein (FITC)	100 tests
9656-09	R-phycoerythrin (PE)	100 tests



Human HPV-16 E6/E7 transformed cell line HS-5 was stained with Mouse Anti-Human CD51-UNLB (SB Cat. No. 9656-01) followed by Goat Anti-Mouse IgG_1, Human ads-PE (SB Cat. No. 1070-09).

Overview

Clone	13C2
Isotype	Mouse (BALB/c) $IgG_1\kappa$
Immunogen	Cell suspension containing osteoclasts from osteoclastomas
Specificity	Human/African Green Monkey/Rabbit/Bovine CD51; Mr 125 & 24 kDa
Alternate Name(s)	Integrin α_V, vitronectin receptor, VNR-α chain
Workshop	IV N26, P17; V S245

Description

CD51 represents the integrin α_V chain that associates with integrin β_3 (CD61) to form the CD51/CD61 vitronectin receptor on endothelial cells, certain activated leukocytes, NK cells, macrophages, neutrophils, and platelets. CD51 is the most promiscuous integrin α subunit as it can form heterodimers with the β_1 (CD29), β_3 (CD61), β_5, β_6 and β_8 subunits in various tissues. CD51/CD61 acts as an activation-independent receptor for platelet attachment and spreading on vitronectin and other RGD-containing proteins including matrix components. It also mediates leukocyte-endothelial cell adhesion via interaction with CD31.

Applications

FC – Quality tested [7,9,10]
IHC-FS – Reported in literature [1,5]
ICC – Reported in literature [3]
IP – Reported in literature [2,3,5,9]
ELISA – Reported in literature [8]
Purification – Reported in literature [4,5]
Depletion – Reported in literature [7]
Block – Reported in literature [3,6]
Adhesion – Reported in literature [3]

Working Dilutions

Flow Cytometry	Purified (UNLB) antibody	≤ 1 µg/10^6 cells
	FITC and PE conjugates	10 µL/10^6 cells
	For flow cytometry, the suggested use of these reagents is in a final volume of 100 µL	
Other Applications	Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.	

For Research Use Only. Not for Diagnostic or Therapeutic Use.

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Handling and Storage

- The purified (UNLB) antibody is supplied as 0.1 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added*. Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 100 tests in 1.0 mL of PBS/NaN_3. Store at 2-8°C.
- The R-phycoerythrin (PE) conjugate is supplied as 100 tests in 1.0 mL of PBS/NaN_3 and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

References

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3. Adams JC, Watt FM. Expression of β_1, β_3, β_4, and β_5 integrins by human epidermal keratinocytes and non-differentiating keratinocytes. J Cell Biol. 1991;115:829-41. (IP, ICC, Block, Adhesion)
4. Nesbitt S, Nesbit A, Helfrich M, Horton M. Biochemical characterization of human osteoclast integrins. Osteoclasts express αvβ3, α2β1, and αvβ1 integrins. J Biol Chem. 1993;268:16737-45. (Purification)
5. Davies J, Warwick J, Totty N, Philip R, Helfrich M, Horton M. The osteoclast functional antigen, implicated in the regulation of bone resorption, is biochemically related to the vitronectin receptor. J Cell Biol. 1989;109:1817-26. (IP, Purification, IHC-FS, African Green Monkey & Rabbit Reactivity)
6. Janes SM, Watt FM. Switch from αvβ5 to αvβ6 integrin expression protects squamous cell carcinomas from anoikis. J Cell Biol. 2004;166:419-31. (Block)
7. Pasqualini R, Bodorova J, Ye S, Hemler ME. A study of the structure, function and distribution of β_5 integrins using novel anti-β_5 monoclonal antibodies. J Cell Sci. 1993;105:101-11. (Depletion, FC)
8. Andreesen R, Brugger W, Scheibenbogen C, Kreutz M, Leser H, Rehm A, et al. Surface phenotype analysis of human monocyte to macrophage maturation. J Leukoc Biol. 1990;47:490-7. (ELISA)
9. Wong DA, Springer TA. Adhesion structure subpanels 7 and 8, β_3, β_4, β_7 integrins and novel functional antigens: CD51, CD61, CD103, and CD104. In: Schlossman SF, Boumsell L, Gilks W, Harlan JM, Kishimoto T, Morimoto C, et al, editors. Leukocyte Typing V: White Cell Differentiation Antigens. Oxford: Oxford University Press; 1995. p. 1655-9. (IP, FC, Reactivity to Bovine)
10. Gravelle S, Barnes R, Hawdon N, Shewchuk L, Eibl J, Lam JS, et al. Up-regulation of integrin expression in lung adenocarcinoma cells caused by bacterial infection: in vitro study. Innate Immun. 2010;16:14-26. (FC)

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