

Technical Data Sheet

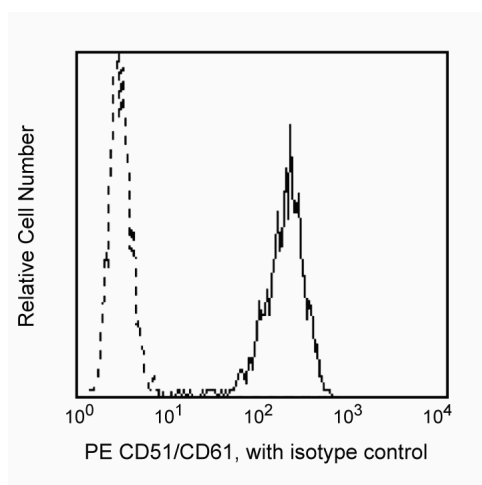
PE Mouse Anti-Human CD51/CD61

Product Information

Material Number:	550037
Alternate Name:	Vitronectin Receptor; Itgav/Itgb3; Integrins alpha V, beta 3
Size:	100 Tests
Vol. per Test:	20 µl
Clone:	23C6
Immunogen:	Human Osteoclastomas
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Human Reported Reactivity: Chicken, Rabbit, Cow
Workshop:	V S246, BP391
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 23C6 monoclonal antibody specifically binds to the Integrin $\alpha\beta3$ heterodimeric complex (CD51/CD61) that is expressed on osteoclasts, endothelial cells, macrophages, melanoma cells, some B cells and in very low amounts on platelets. This antibody has been reported to crossreact with chicken, bovine, and rabbit, but not with rat $\alpha\beta3$. The integrin $\alpha\beta3$ heterodimer, often referred to as the vitronectin receptor, binds several ligands in addition to vitronectin including, von Willebrand factor, thrombospondin, osteopontin, bone sialoprotein, neural adhesion molecule L1, laminin, fibronectin, and fibrinogen. The binding of some ligands to the vitronectin receptor has been reported to be inhibited by the 23C6 monoclonal antibody.



Flow cytometric analysis of CD51/CD61 expression on human melanoma cell line M21. M21 cells were stained with either PE Mouse IgG1, κ Isotype Control (Cat. No. 555749; dashed line histogram) or PE Mouse Anti-Human CD51/CD61 (Cat. No. 550037; solid line histogram). Fluorescent histograms depicting CD51/CD61 (or Ig isotype) expression were derived from gated events with the side and forward light-scatter characteristics of viable cells.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
555749	PE Mouse IgG1, κ Isotype Control	100 Tests	MOPC-21
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)

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550037 Rev. 9



Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

- Athanasou NA, Quinn J, Horton MA, McGee JO. New sites of cellular vitronectin receptor immunoreactivity detected with osteoclast-reacting monoclonal antibodies 13C2 and 23C6. *Bone Miner.* 1990; 8(1):7-22. (Biology)
- Chuntharapai A, Bodary S, Horton M, Kim KJ. Blocking monoclonal antibodies to alpha V beta 3 integrin: a unique epitope of alpha V beta 3 integrin is present on human osteoclasts. *Exp Cell Res.* 1993; 205(2):345-352. (Biology)
- Davies J, Warwick J, Totty N, Philp 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(4):1817-1826. (Biology)
- Horton MA, Lewis D, McNulty K, Pringle JA, Chambers TJ. Monoclonal antibodies to osteoclastomas (giant cell bone tumors): definition of osteoclast-specific cellular antigens. *Cancer Res.* 1985; 45(11):5663-5669. (Biology)
- Horton MA, Taylor ML, Arnett TR, Helfrich MH. Arg-Gly-Asp (RGD) peptides and the anti-vitronectin receptor antibody 23C6 inhibit dentine resorption and cell spreading by osteoclasts. *Exp Cell Res.* 1991; 195(2):368-375. (Biology)
- Nesbitt S, Nesbit A, Helfrich M, Horton M. Biochemical characterization of human osteoclast integrins. Osteoclasts express alpha v beta 3, alpha 2 beta 1, and alpha v beta 1 integrins. *J Biol Chem.* 1993; 268(22):16737-16745. (Biology)
- Schlossman SF, Stuart F, Schlossman J, et al., ed. *Leucocyte typing V : white cell differentiation antigens : proceedings of the fifth international workshop and conference held in Boston, USA, 3-7 November, 1993.* Oxford: Oxford University Press; 1995(Clone-specific)
- Usatyuk PV, Parinandi NL, Natarajan V. *J Biol Chem.* 2006; 281(46):35554-35566. (Immunogen)
- Zola H. *Leukocyte and stromal cell molecules : the CD markers.* Hoboken, N.J.: Wiley-Liss; 2007(Biology)