

Technical Data Sheet

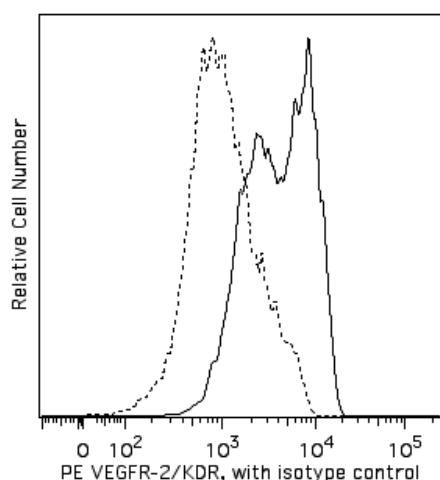
PE Mouse Anti-Human CD309 (VEGFR-2)

Product Information

Material Number:	560872
Alternate Name:	FLK1; Fetal liver kinase 1; KDR; VEGFR2; VEGF Receptor 2
Size:	25 Tests
Vol. per Test:	20 µl
Clone:	89106
Immunogen:	Human VEGFR-2
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 89106 monoclonal antibody reacts with CD309 (vascular endothelial growth factor receptor-2 (VEGFR-2)), a receptor protein tyrosine kinase closely related to CD117 (c-kit) and CD140a (PDGF Receptor α chain) of the immunoglobulin superfamily. VEGFR-2, also known as fetal liver kinase 1 (Flk-1) or kinase insert domain receptor (KDR), is a receptor for vascular endothelial growth factor (VEGF). It is expressed, at the mRNA and protein levels, on distinct sets of mesoderm during gastrulation and on endothelial cells in embryonic tissues. *In vivo* and *in vitro* studies indicate that VEGFR-2 is required for the embryonic development of vascular endothelial and hematopoietic cells. Human cardiac progenitor cells derived from human embryonic stem cells arise from a population of cells that express VEGFR-2.



Flow cytometric analysis of PE anti-human VEGFR-2/KDR on HUVEC cells. HUVEC (Lonza, Cat. No. CC-2517) cells grown in EGM®-2 Endothelial Cell Growth Medium (Lonza, Cat No. CC-3162), which contains VEGF, were dissociated with Cell Dissociation Buffer (Life Technologies, Cat. No. 13151-014). The HUVEC cells were stained with either PE anti-human VEGFR-2/KDR (solid line) or PE mouse IgG1 k Isotype Control (Clone MOPC-21, Cat. No. 554680) (dotted line). Flow cytometry was performed on a BD™ LSR II flow cytometry system.

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
----------------	------------------

Suggested Companion Products

Catalog Number	Name	Size	Clone
554680	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
560494	PE Mouse Anti-Human CD309 (VEGFR-2)	100 Tests	89106
554656	Stain Buffer (FBS)	500 mL	(none)

BD Biosciences

bdbiosciences.com

United States 877.232.8995 Canada 866.979.9408 Europe 32.2.400.98.95 Japan 0120.8555.90 Asia Pacific 65.6861.0633 Latin America/Caribbean 55.11.5185.9995

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2015 BD

560872 Rev. 3



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. 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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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

Farace F, Massard C, Borghi E, Bidart JM, Soria JC. Vascular disrupting therapy-induced mobilization of circulating endothelial progenitor cells. *Ann Oncol*. 2007; 18(8):1421-1422. (Biology)

Ferrara N, Houck K, Jakeman L, Leung DW. Molecular and biological properties of the vascular endothelial growth factor family of proteins. *Endocr Res*. 1992; 13(1):18-32. (Biology)

Yang L, Soonpaa MH, Adler ED, Roepke TK, Kattman SJ, Kennedy M, Henckaerts E, Bonham K, Abbott GW, Linden RM, Field LJ, Keller GM. Human cardiovascular progenitor cells develop from a KDR+ embryonic-stem-cell-derived population. *Nature*. 2008; 453(7194):524-528. (Biology)

Ziegler BL, Valtieri M, Porada GA, De Maria R, Müller R, Masella B, Gabbianelli M, Casella I, Pelosi E, Bock T, Zanjani ED, Peschle C. KDR receptor: a key marker defining hematopoietic stem cells. *Science*. 1999; 285:1553-1558. (Biology)

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	866.979.9408	32.2.400.98.95	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2015 BD

560872 Rev. 3

