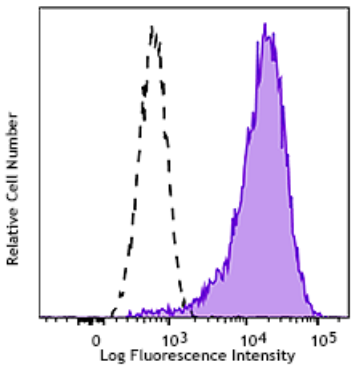
SONY

Product Data Sheet

PE/Dazzle™ 594 anti-mouse CD34

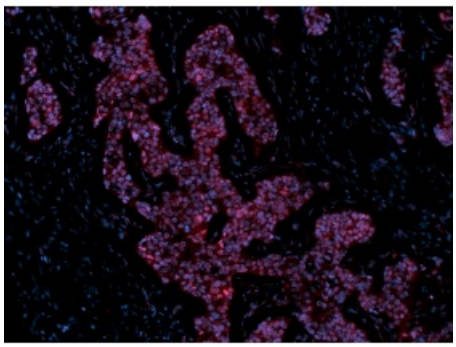
Catalog # / Size:	1196650 / 100 µg 1196645 / 25 µg
Clone:	MEC14.7
Isotype:	Rat IgG2a, κ
Immunogen:	Cells transfected with mouse CD34
Reactivity:	Mouse
Preparation:	The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Workshop Number:	V-CD28.05
Concentration:	0.2 mg/mL



Mouse fibroblast cell line NIH/3T3 was stained with CD34 (clone MEC14.7) PE/Dazzle™ 594 (filled histogram) or rat IgG2a, κ PE/Dazzle™ 594 isotype control (open histogram).

Applications:

Applications:	Flow Cytometry
Recommended Usage:	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 0.5 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application. * PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.
Application Notes:	The MEC14.7 antibody does not stain bone marrow cells like some other mouse CD34 antibodies, probably because the antibody recognizes a different epitope from other mAbs. Additional reported applications (for the relevant formats) include: immunoprecipitation, Western blotting[6], and immunohistochemistry of acetone-fixed frozen sections and paraffin-embedded sections[2,4,5,6].



Formalin-fixed paraffin-embedded human breast cancer tissue slices were deparaffinized and rehydrated. Antigen retrieval was done with Tris-Buffered Saline 1X (1.0 M, pH 7.4) at 95°C for 40 minutes, washed with PBS/0.05% Tween 20 twice for five minutes, permeabilized with 0.5% Triton X-100 for ten minutes, and blocked with 5% FBS and 0.2% gelatin for 30 minutes. Then, the slices were stained with 5 µg/mL anti-EGFR (clone A19002A) Alexa Fluor® 647 (red) at 4°C overnight. Nuclei were counterstained with DAPI (green). The image was captured with a 10X objective.

Sony Biotechnology Inc. 1730 North First Street, San Jose, CA 95112 www.sonybiotechnology.com

Application References:

1. Garlanda C, *et al.* 1997. *Eur. J. Cell Biol.* 73:368. (FC)
2. Knowles HJ, *et al.* 2004. *Circ. Res.* 95:162. (IHC)
3. Trempus CS, *et al.* 2003. *J. Invest. Dermatol.* 120:501.
4. Winding B, *et al.* 2002. *Clin. Cancer Res.* 8:1932. (IHC)
5. Voswinckel R, *et al.* 2003. *Circ. Res.* 93:372. (IHC)
6. Kairaitis LK, *et al.* 2005. *Am. J. Physiol. Renal. Physiol.* 288:F198. (IHC, WB)
7. Ao A, *et al.* 2008. *P. Natl. Acad. Sci. USA* 105:7821. PubMed
8. Zaynagetdinov R., *et al.* 2011. *J Immunol.* 187:5703. PubMed.

Description: CD34 is a highly glycosylated hematopoietic progenitor antigen. Two isoforms of CD34 have been reported to be generated by alternative splicing. This antigen is expressed on hematopoietic progenitors as well as on endothelial cells, brain, and testis. CD34 is thought to function as an adhesion molecule for early hematopoietic progenitors mediating the attachment of stem cells to extracellular matrix or stromal cells. CD34 is phosphorylated on serine residues by PKC.

Antigen References:

1. Garlanda C, *et al.* 1997. *Eur. J. Cell Biol.* 73:368.
2. Brown J, *et al.* 1991. *Int. Immunol.* 3:175.
3. Suda J, *et al.* 1992. *Blood* 79:2288.
4. Baumhueter S, *et al.* 1994. *Blood* 84:2554.