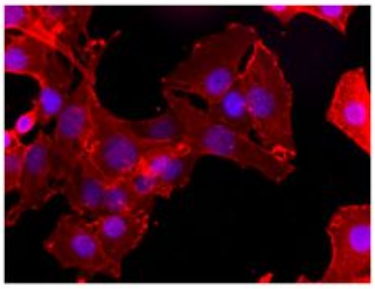
SONY

Product Data Sheet

Purified anti-mouse CD34

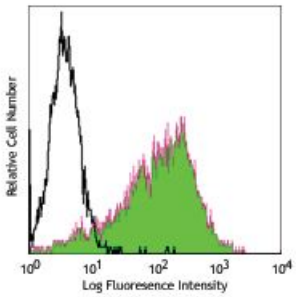
Catalog # / Size:	1196505 / 50 µg 1196510 / 500 µg
Clone:	MEC14.7
Isotype:	Rat IgG2a, κ
Immunogen:	Cells transfected with mouse CD34
Reactivity:	Mouse
Preparation:	The antibody was purified by affinity chromatography.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Workshop Number:	750 under optimal conditions.
Concentration:	0.5



NIH3T3 cells were fixed with 1% PFA and then stained with 10 µg/1ml purified CD34 (clone MEC14.7) for 3 hours at room temperature. The cells were then stained with 2.5 mg/ml anti-rat IgG Dylight™ 594 secondary antibody (red) for 1 hours at room temperature. The nuclei were counterstained with DAPI and are shown in blue. The image was captured by 40X objective.

Applications:

Applications:	Flow Cytometry, Immunocytochemistry, Immunoprecipitation
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 ≤1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
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].



Mouse NIH/3T3 cell line stained with purified MEC14.7, followed with biotinylated anti-rat IgG and Sav-PE

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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.

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