PE/Dazzle™ 594 anti-human CD133

Catalog # / Size:	2569555 / 25 tests 2569560 / 100 tests
Clone:	S16015F
Isotype:	Mouse IgG2a, κ
Immunogen:	Human CD133 transfectants
Reactivity:	Human
Preparation:	The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions. The solution is free of unconjugated PE/Dazzle™ 594 and unconjugated antibody.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA)
Workshop Number:	IV P38
Concentration:	Lot-specific

Human peripheral blood mononuclear cells were stained with CD34 APC/Cyanine7 and CD133 (clone S16015F) PE/Dazzle™ 594 (left) or mouse IgG2a, κ PE/Dazzle™ 594 isotype control (right). Data shown was gated on the CD45$^+$ and CD14$^-$ lymphocyte population.

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 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. 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:	In-house testing suggests that clone S16015F does not block clones 293C3, AC133, and clone 7 that are also raised against human CD133.
Application References:	1. Knapp W, *et al.* 1989. Leucocyte Typing IV. Oxford University Press. New York. 2. McCarty OJT, *et al.* 2000. *Blood* 96:1789. 3. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC) 4. Zhi L *et al.* 2013. *PLoS One*. 8:e79869. (IHC)
Description:	CD133, also known as Prominin-1 and AC133 antigen, is a 120 kD pentaspan glycoprotein with 5 transmembrane domains. CD133 was initially described as a surface antigen specific for human hematopoietic stem cells and as a marker for murine neuroepithelial cells and some embryonic epithelia. Later on, CD133 was found on other stem cells, including endothelial progenitor cells, glioblastomas, neuronal, and glial stem cells. In addition to stem cells for normal tissue, CD133 was found on cancer cells, such as some leukemia cells and brain tumor cells. Although the biological function of CD133 is not completely understood, CD133 has been extensively used as a stem cell marker for normal and cancerous tissues.

Antigen References:

1. Yin AH, *et al.* 1997. *Blood.* 90:5002.
2. Miraglia S, *et al.* 1997. *Blood.* 90:5013.
3. Bühring HJ, *et al.* 1999. *Ann. NY Acad. Sci.* 872:25.