
Product Data Sheet

Brilliant Violet 421™ anti-human CD133

Catalog # / Size:	2570535 / 25 tests 2570540 / 100 tests	<p>□ Human peripheral blood mononuclear cells were stained with CD34 FITC and CD133 (clone S16016E) Brilliant Violet 421™ (left) or mouse IgG2a, κ Brilliant Violet 421™ isotype control (right). Data shown were gated on the CD45⁺ and CD14⁻ lymphocyte population.</p>
Clone:	S16016E	
Isotype:	Mouse IgG2a, κ	
Immunogen:	Human CD133 transfectants	
Reactivity:	Human	
Preparation:	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 421™ and unconjugated antibody.	
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)	
Workshop Number:	IV P38	
Concentration:	Lot-specific	

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.

Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.

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Application Notes: In-house testing suggests that clone S16016E blocks clone 293C3 but not 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.