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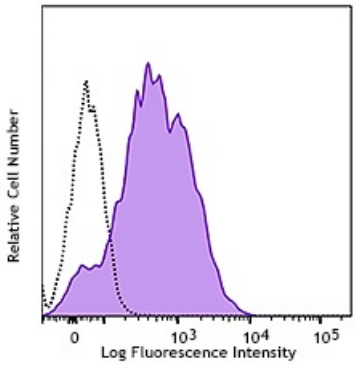
Product Data Sheet

Brilliant Violet 421™ anti-human CD54

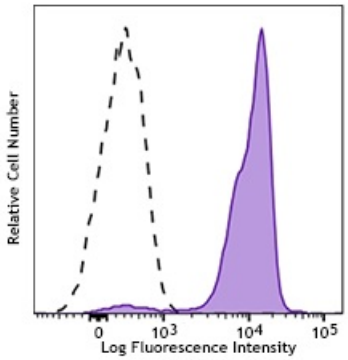
Catalog # / Size:	2365660 / 100 tests 2365655 / 25 tests
Clone:	HA58
Isotype:	Mouse IgG1, κ
Immunogen:	Colonic cancer BM314 cells
Reactivity:	Human
Preparation:	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Workshop Number:	HCDM listed
Concentration:	Lot-specific



Human peripheral blood lymphocytes were stained with CD54 (clone HA58) Brilliant Violet 421™ (filled histogram) or mouse IgG1, κ Brilliant Violet 421™ isotype control (open histogram).

Applications:

Applications:	Flow Cytometry



Human peripheral blood granulocytes were stained with True-Stain Monocyte Blocker™ (Cat. No. 426103) and Siglec-9 (clone K8) APC/Fire™ 750 (filled histogram) or mouse IgG1, κ isotype control APC/Fire™ 750 (open histogram).

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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: Clone HA58 recognizes an epitope located in the extracellular D1 domain of CD54.[3]

Application References:

1. Tsujisaki M, *et al.* 1991. *Clin. Exp. Immunol.* 85:3.
2. Kanwar JR, *et al.* 2003. *Cancer Gene Ther.* 10:468.
3. Kohka H, *et al.* 1998. *J. Leukoc. Biol.* 64:519.

Description: CD54 is a 85-110 kD type I transmembrane protein also known as ICAM-1. It is expressed on activated endothelial cells, high endothelial venules, T and B cells, monocytes/macrophages, granulocytes, and dendritic cells. The expression of ICAM-1 can be released from the cell surface. CD54 plays a role in cellular adhesion and is involved in inflammation and leukocyte extravasation. CD54 has also been shown to be the major cellular receptor for rhinovirus. ICAM-1 binds to CD11a/CD18 (LFA-1), CD11b/CD18 (Mac-1), CD11c/CD18 (p150, 95) as well as hyaluronan and fibrinogen.

Antigen References:

1. Voraberger G, *et al.* 1991. *J. Immunol.* 147:2777.
2. Staunton DE, *et al.* 1988. *Cell* 52:925.
3. Greve JM, *et al.* 1989. *Cell* 56:839.

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