SONY

Product Data Sheet

Brilliant Violet 605™ anti-human CD141 (Thrombomodulin)

Catalog # / Size: 2320585 / 25 tests
2320590 / 100 tests

Clone: M80

Isotype: Mouse IgG1, κ

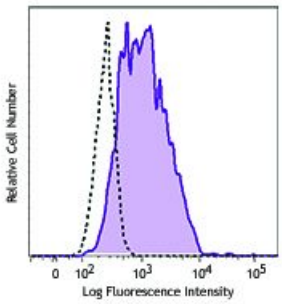
Reactivity: Human, Non-human primate

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

Workshop Number: V B-CD73.3

Concentration: Lot-specific



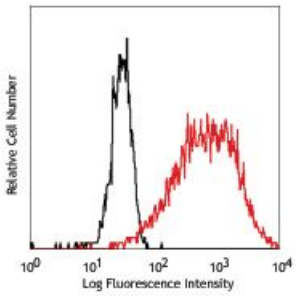
LPS-stimulated (overnight) human peripheral blood monocytes were stained with CD141 (clone M80) Brilliant Violet 605™ (filled histogram) or mouse IgG1, κBrilliant Violet 605™ isotype control (open histogram). Data shown was gated on monocyte population.

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 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 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 605™ is a trademark of Sirigen Group Ltd.



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Description: CD141 is a 75 kD, single chain, type I membrane glycoprotein also known as thrombomodulin, TM, THRM, THBD, and fetomodulin. CD141 is an important cofactor in the protein C anticoagulant system. After binding to its ligand thrombin, CD141 activates protein C, which degrades clotting factors Va and VIIIa, and as a consequence the amount of thrombin is reduced. CD141 is expressed on macrophages, monocytes, a subpopulation of myeloid dendritic cells, vascular endothelial cells, and keratinocytes. Besides anti-coagulation function, CD141 is also involved in embryonic and atherosclerotic plaque development.

Antigen References:

1. Suzuki K, *et al.* 1987. *EMBO J.* 6:1891.
2. Esmon CT, *et al.* 1989. *J. Biol. Chem.* 264:4743.
3. Delvaeye M, *et al.* 2009. *N. Engl. J. Med.* 361:345.
4. Shi CS, *et al.* 2008. *Blood* 112:3661.
5. Chen LC, *et al.* 2009. *J. Infect.* 58:368.

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