SONY

Product Data Sheet

Brilliant Violet 711™ anti-human CD138 (Syndecan-1)

Catalog # / Size: 2382605 / 25 tests
2382610 / 100 tests

Clone: MI15

Isotype: Mouse IgG1, κ

Immunogen: A mixture of U266 and XG-1 human myeloma cell lines.

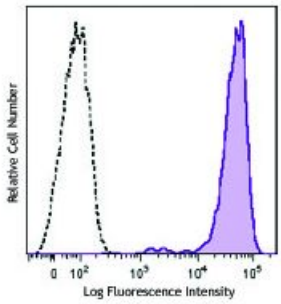
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 711™ 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



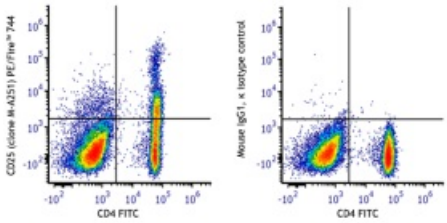
Human myeloma cell line U266 was stained with CD138 (clone MI15) Brilliant Violet 711™ (filled histogram) or mouse IgG1, κBrilliant Violet 711™ isotype control (open histogram).

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 711™ excites at 405 nm and emits at 711 nm. The bandpass filter 710/50 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 711™ is a trademark of Sirigen Group Ltd.



Human peripheral blood mononuclear cells were stained with anti-human CD4 (clone SK3) FITC and anti-human CD25 (clone M-A251) PE/Fire™ 744 (left) or mouse IgG1, κ PE/Fire™ 744 isotype control (right).

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Application Notes: The epitope recognized by MI15 is found within the ectodomain of the CD138 core protein. It has been reported that MI15 blocks the binding of clone B-B4 but not clone DL-101 by flow cytometric analysis. Clones DL-101 and MI15 exhibit differential staining patterns on *in vitro* generated plasma cells and some CD138^{+} cell lines.4

Additional reported applications for the relevant formats include: immunofluorescent staining1, Western blotting2, and immunohistochemical staining of formalin-fixed paraffin-embedded frozen tissue sections3.

Application References:

1. Costes V, *et al.* 1999. *Hum. Pathol.* 30:1405. (IF)
2. Gattei V, *et al.* 1999. *Br. J. Haematol.* 104:152. (WB)
3. Bologna-Molina R, *et al.* 2008. *Oral Oncol.* 44:805. (IHC)
4. Itoua MR, *et al*. 2014. *Biomed. Res. Int*. 2014:536482.

Description: CD138, a member of the syndecan protein family, is a type I integral membrane heparin sulfate proteoglycan also known as Syndecan-1. Syndecan-1 participates in cell proliferation, cell migration, and cell-matrix adhesion via interaction with collagen, fibronectin, and other soluble molecules (such as FGF-basic). It is expressed on normal and malignant human plasma cells, pre-B cells, epithelial cells, and endothelial cells, but not on mature circulating B-lymphocytes. It is also expressed on some non-hematopoietic cells, including embryonic mesenchymal cells, vascular smooth muscle cells, endothelial cells, and neural cells.

Antigen References:

1. Sanderson RD, *et al.* 1992. *Cell. Regul.* 1:27.
2. Zola H, *et al.* 2007. Leukocyte and Stromal Cell Molecules: The CD Markers. Wiley-Liss A John Wiley & Sons Inc, Publication.

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