SONY

# Product Data Sheet

## Brilliant Violet 785™ anti-human CD138 (Syndecan-1)

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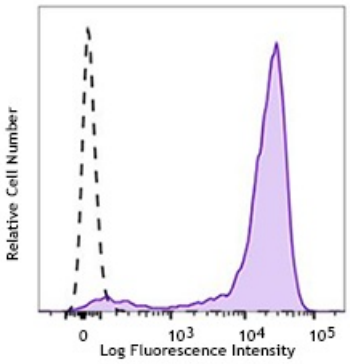
|---|---|
| **Catalog # / Size:** | 2382690 / 100 tests<br>2382685 / 25 tests |
| **Clone:** | MI15 |
| **Isotype:** | Mouse IgG1, κ |
| **Immunogen:** | A mixture of U266 and XG-1 human myeloma cell lines. |
| **Reactivity:** | Human |
| **Preparation:** | The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 785™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 785™ and unconjugated antibody. |
| **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 785™ (filled histogram) or mouse IgG1, κ Brilliant Violet 785™ isotype control (open histogram).

## Applications:

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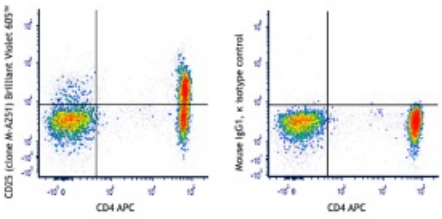
| **Applications:** | Flow Cytometry |
| **Recommended Usage:** | Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. |




Human peripheral blood lymphocytes were stained with CD4 APC and CD25 (clone M-A251) Brilliant Violet 605™ (left) or Mouse IgG1, κ Brilliant Violet 605™ 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 staining[1], Western blotting[2], and immunohistochemical staining of formalin-fixed paraffin-embedded frozen tissue sections[3].

**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.


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**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.