

## GMP FITC anti-human CD138 (Syndecan-1) Antibody

<b>Catalog# / Size</b>	260398 / 100 tests
<b>Clone</b>	MI15
<b>Workshop</b>	HCDM listed
<b>Other Names</b>	B-B4
<b>Isotype</b>	Mouse IgG1, $\kappa$
<b>Description</b>	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.

### Product Details

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<b>Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	A mixture of U266 and XG-1 human myeloma cell lines.
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA) and a stabilizer.
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with FITC under optimal conditions.
<b>Concentration</b>	200 $\mu\text{g}/\text{mL}$
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 $\mu\text{L}$ per million cells in 100 $\mu\text{L}$ staining volume or 5 $\mu\text{L}$ per 100 $\mu\text{L}$ of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Application Notes</b>	<p>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 <i>in vitro</i> generated plasma cells and some CD138<sup>+</sup> cell lines.<sup>4</sup></p> <p>Additional reported applications for the relevant formats include: immunofluorescent staining<sup>1</sup>, Western blotting<sup>2</sup>, immunohistochemical staining of formalin-fixed paraffin-embedded frozen tissue sections<sup>3</sup>, and spatial biology (IBEX)<sup>5,6</sup>.</p>

### Application References

(PubMed link indicates BioLegend citation)

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.
5. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA.* 117:33455-33465. (SB) [PubMed](#)

#### Disclaimer

**GMP RUO Flow Cytometry Antibodies.** BioLegend GMP RUO fluorophore conjugated antibodies are manufactured in a dedicated GMP facility and compliant with ISO 13485:2016. For research use only. Not for use in diagnostic or therapeutic procedures. Our processes include:

- Batch-to-batch consistency
- Material traceability
- Documented procedures
- Documented employee training
- Equipment maintenance and monitoring records
- Lot-specific certificates of analysis
- Quality audits per ISO 13485:2016
- QA review of released products

## Antigen Details

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<b>Structure</b>	100-200 kD type I integral transmembrane glycoprotein
<b>Distribution</b>	Plasma cells, pre-B cells, epithelial cells, endothelial cells
<b>Function</b>	Adhesion, controls cell morphology, regulates cell growth
<b>Ligand/Receptor</b>	FGFb, collagen, fibronectin
<b>Cell Type</b>	B cells, Endothelial cells, Epithelial cells, Plasma cells
<b>Biology Area</b>	Cell Adhesion, Cell Biology, Cell Motility/Cytoskeleton/Structure, Immunology, Neuroscience, Synaptic Biology
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	1. Sanderson RD, et al. 1992. <i>Cell. Regul.</i> 1:27. 2. Zola H, et al. 2007. <i>Leukocyte and Stromal Cell Molecules: The CD Markers.</i> Wiley-Liss A John Wiley & Sons Inc, Publication.
<b>Gene ID</b>	<a href="#">6382</a>

## Related Protocols

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- [Cell Surface Flow Cytometry Staining Protocol](#)

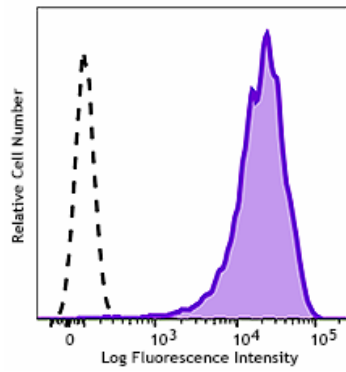
## Other Formats

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PE anti-human CD138 (Syndecan-1), Purified anti-human CD138 (Syndecan-1), APC anti-human CD138 (Syndecan-1), FITC anti-human CD138 (Syndecan-1), PerCP/Cyanine5.5 anti-human CD138 (Syndecan-1), Alexa Fluor® 700 anti-human CD138 (Syndecan-1), PE/Cyanine7 anti-human CD138 (Syndecan-1), Brilliant Violet 421™ anti-human CD138 (Syndecan-1), Brilliant Violet 510™ anti-human CD138 (Syndecan-1), Brilliant Violet 605™ anti-human CD138 (Syndecan-1), Brilliant Violet 711™ anti-human CD138 (Syndecan-1), Alexa Fluor® 647 anti-human CD138 (Syndecan-1), Alexa Fluor® 594 anti-human CD138 (Syndecan-1), PE/Dazzle™ 594 anti-human CD138 (Syndecan-1), APC/Cyanine7 anti-human CD138 (Syndecan-1), Pacific Blue™ anti-human CD138 (Syndecan-1), TotalSeq™-A0055 anti-human CD138 (Syndecan-1), Brilliant Violet 785™ anti-human CD138 (Syndecan-1), Biotin anti-human CD138 (Syndecan-1), TotalSeq™-C0055 anti-human CD138 (Syndecan-1), APC/Fire™ 750 anti-human CD138 (Syndecan-1), TotalSeq™-B0055 anti-human CD138 (Syndecan-1), PE/Cyanine5 anti-human CD138 (Syndecan-1), TotalSeq™-D0055 anti-human CD138 (Syndecan-1), PE/Fire™ 640 anti-human CD138 (Syndecan-1), Spark Violet™ 500 anti-human CD138 (Syndecan-1), FITC anti-human CD138, PE/Fire™ 700 anti-human CD138 (Syndecan-1), Spark Violet™ 423 anti-human CD138 (Syndecan-1), Spark Red™ 718 anti-human CD138 (Syndecan-1) (Flexi-Fluor™)

## Product Data

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Typical results from human myeloma cell line U266 stained either with MI15 FITC used at 5 µL/test (filled histogram) or with an isotype control (open histogram).

For Research Use Only. Suitable for *ex vivo* cell processing. Not for injection or diagnostic or therapeutic use.

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