

TotalSeq™-A0831 anti-human CD138 (Syndecan-1) Antibody

Catalog# / Size	352325 / 10 µg
Clone	DL-101
Regulatory Status	RUO
Workshop	V B045
Other Names	Syndecan-1, B-B4
Isotype	Mouse IgG1, κ
Barcode Sequence	GTATAGACCAAAGCC
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.

Product Details

Verified Reactivity	Human
Reported Reactivity	African Green, Baboon, Cynomolgus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human SDC1
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 1 mM EDTA.
Preparation	The antibody was purified by chromatography and conjugated with TotalSeq™-A oligomer under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Do not freeze.
Application	PG - Quality tested
Recommended Usage	<p>Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis and the oligomer sequence is confirmed by sequencing. TotalSeq™-A antibodies are compatible with 10x Genomics Single Cell Gene Expression Solutions.</p> <p>To maximize performance, it is strongly recommended that the reagent be titrated for each application, and that you centrifuge the antibody dilution before adding to the cells at 14,000xg at 2 - 8°C for 10 minutes. Carefully pipette out the liquid avoiding the bottom of the tube and add to the cell suspension. For Proteogenomics analysis, the suggested starting amount of this reagent for titration is ≤ 1.0 µg per million cells in 100 µL volume. Refer to the corresponding TotalSeq™ protocol for specific staining instructions.</p> <p>Buyer is solely responsible for determining whether Buyer has all intellectual property rights that are necessary for Buyer's intended uses of the BioLegend TotalSeq™ products. For example, for any technology platform Buyer uses with TotalSeq™, it is Buyer's sole responsibility to determine whether it has all necessary third party intellectual property rights to use that platform and TotalSeq™ with that platform.</p>
Application Notes	<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⁺ cell lines.²</p> <p>Additional reported applications (for the relevant formats of this clone) include:</p>

immunohistochemical staining in paraffin blocks of tissue sections¹.

Additional Product Notes

TotalSeq™ reagents are designed to profile protein levels at a single cell level following an optimized protocol similar to the CITE-seq workflow. A compatible single cell device (e.g. [10x Genomics Chromium System and Reagents](#)) and sequencer (e.g. Illumina analyzers) are required. Please contact [technical support](#) for more information, or visit [biolegend.com/totalseq](#).

The barcode flanking sequences are CCTTGGCACCCGAGAATTCCA (PCR handle), and BAAA*A*A (capture sequence). B represents either C, G, or T, and * indicates a phosphorothioated bond, to prevent nuclease degradation.

View more applications data for this product in our [Scientific Poster Library](#).

Application References

(PubMed link indicates BioLegend citation)

1. Osama MA. 2010. *Int. J. Clin. Exp. Pathol.* 3:280. (IHC)
2. Itoua MR, et al. 2014. *Biomed. Res. Int.* 2014:536482. [PubMed](#)

Product Citations

1. Witkowski MT, et al. 2020. *Cancer Cell.* 37:867. [PubMed](#)
2. Hao Y, et al. 2021. *Cell.* 184:3573. [PubMed](#)

RRID

AB_2800938 (BioLegend Cat. No. 352325)

Antigen Details

Structure	100-200 kD type I integral transmembrane glycoprotein
Distribution	Plasma cells, pre-B cells, epithelial cells, endothelial cells
Function	Adhesion, control cell morphology, regulate cell growth
Ligand/Receptor	FGFb, collagen, fibronectin
Cell Type	B cells, Endothelial cells, Epithelial cells, Plasma cells
Biology Area	Cell Adhesion, Cell Biology, Immunology
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	<ol style="list-style-type: none">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.
Gene ID	6382

Related Protocols

[TotalSeq™-A Antibodies and Cell Hashing with 10x Single Cell 3' Reagent Kit v3 3.1 Protocol](#)

Other Formats

Purified anti-human CD138 (Syndecan-1), FITC anti-human CD138 (Syndecan-1), PE anti-human CD138 (Syndecan-1), APC anti-human CD138 (Syndecan-1), PerCP/Cyanine5.5 anti-human CD138 (Syndecan-1), Purified anti-human CD138 (Syndecan-1) (Maxpar® Ready), PE/Cyanine7 anti-human CD138 (Syndecan-1), PE/Dazzle™ 594 anti-human CD138 (Syndecan-1), Alexa Fluor® 647 anti-human CD138 (Syndecan-1), APC/Fire™ 750 anti-human CD138 (Syndecan-1), Biotin anti-human CD138 (Syndecan-1), Alexa Fluor® 594 anti-human CD138 (Syndecan-1), TotalSeq™-A0831 anti-human CD138 (Syndecan-1), TotalSeq™-C0831 anti-human CD138 (Syndecan-1), TotalSeq™-B0831 anti-human CD138 (Syndecan-1) Antibody

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587