

Antibodies

Anti-Human CD138 (Syndecan-1) Antibody, Clone MI15, APC



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TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

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Catalog #60003AZ
#60003AZ.1

100 Tests 5 µL/test
25 Tests 5 µL/test

Product Description

The MI15 antibody reacts with an extracellular epitope on CD138 (Syndecan-1), an ~85 - 95 kDa type 1 transmembrane glycoprotein expressed on the surface of pre-B cells, immature B cells, and normal and malignant plasma cells (but not mature circulating B cells), as well as on non-hematopoietic cells such as embryonic mesenchymal cells, endothelial, epithelial and neural cells. CD138 expression is used as a diagnostic marker for several types of tumors. CD138 is thought to act primarily as a receptor which modulates cell proliferation, cell migration and cell-matrix associations by linking the extracellular matrix to the cytoskeleton. Heparin sulfate and chondroitin sulfate moieties attached to CD138 associate with several proteins, including collagens, fibronectin, tenascin, thrombospondin and certain cytokines. The MI15 antibody recognizes a different epitope to that of the clone DL-101 anti-CD138 antibody but blocks binding of clone B-B4. Peptide-binding ELISA data indicate that the epitope of the MI15 antibody is located in the extracellular domain of CD138 within the sequence Gly98 - Glu118 (GPKEGEAVLPEVEPGLTARE).

Target Antigen Name:	CD138 (Syndecan-1)
Alternative Names:	B-B4, SDC1, syndecan-1
Gene ID:	6382
Species Reactivity:	Human, Rhesus, Cynomolgus (IHC)
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	MI15
Isotype:	IgG1, kappa
Immunogen:	A combination of human-derived U266 and XG-1 myeloma cell lines
Conjugate:	APC (Allophycocyanin)

Applications

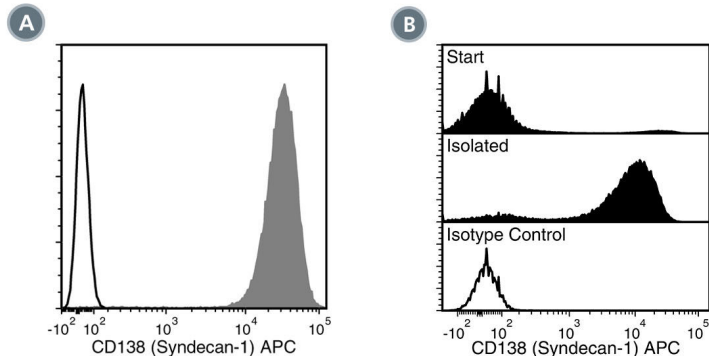
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ Human CD138 Positive Selection Kit II (Catalog #17877) and EasySep™ Human Whole Blood and Bone Marrow CD138 Positive Selection Kit II (Catalog #17887).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) bovine serum albumin
Purification:	The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions. The solution is free of unconjugated APC and unconjugated antibody.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, contact techsupport@stemcell.com .
Directions for Use:	For flow cytometry, the suggested use of this antibody is 5 µL per 1 x 10 ⁶ cells in 100 µL volume or per 100 µL of whole blood. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of human U266 myeloma cells labeled with Anti-Human CD138 (Syndecan-1) Antibody, Clone MI15, APC (filled histogram) or a mouse IgG1, kappa APC isotype control antibody (solid line histogram).

(B) Flow cytometry analysis of human U266 myeloma cells isolated with EasySep™ Human CD138 Positive Selection Kit from a mixed population of U266 cells and human peripheral blood mononuclear cells. Cells were labeled with Anti-Human CD138 (Syndecan-1) Antibody, Clone MI15, APC. Histograms show labeling of the starting population containing ~5% U266 cells (Start) and the isolated cells (Isolated). Labeling of the start cells with Mouse IgG1, kappa Isotype Control Antibody, Clone MOPC-21, APC (Catalog #60071AZ) is shown (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

- Kawano Y et al. (2013) Hypoxia reduces CD138 expression and induces an immature and stem cell-like transcriptional program in myeloma cells. *Int J Oncol* 43(6): 1809–16. (FC)
- Phuah JY et al. (2012) Activated B cells in the granulomas of nonhuman primates infected with *Mycobacterium tuberculosis*. *Am J Pathol* 181(2): 508–14. (IHC)
- Erikson E et al. (2011) In vivo expression profile of the antiviral restriction factor and tumor-targeting antigen CD317/BST-2/HM1.24/tetherin in humans. *Proc Natl Acad Sci U S A* 108(33): 13688–93. (FC, IF, IHC)
- Beauvais DM et al. (2009) Syndecan-1 regulates alphavbeta3 and alphavbeta5 integrin activation during angiogenesis and is blocked by synstatin, a novel peptide inhibitor. *J Exp Med* 206(3): 691–705. (FC, IF, IHC, IP)
- Bologna-Molina R et al. (2008) Syndecan-1 (CD138) and Ki-67 expression in different subtypes of ameloblastomas. *Oral Oncol* 44(8): 805–11. (IHC)
- Götte M et al. (2007) An expression signature of syndecan-1 (CD138), E-cadherin and c-met is associated with factors of angiogenesis and lymphangiogenesis in ductal breast carcinoma in situ. *Breast Cancer Res* 9(1): R8. (ICC, IF, IHC)
- Colomo L et al. (2003) Clinical impact of the differentiation profile assessed by immunophenotyping in patients with diffuse large B-cell lymphoma. *Blood* 101(1): 78–84. (IHC)
- Sefalioglu A & Karakus S. (2003) Syndecan-1/CD138 expression in normal myeloid, acute lymphoblastic and myeloblastic leukemia cells. *Acta Histochem* 105(3): 213–21. (IHC, Electron microscopy)
- Costes V et al. (1999) The Mi15 monoclonal antibody (anti-syndecan-1) is a reliable marker for quantifying plasma cells in paraffin-embedded bone marrow biopsy specimens. *Hum Pathol* 30(12): 1405–11. (IHC)
- Gattei V et al. (1999) Characterization of anti-CD138 monoclonal antibodies as tools for investigating the molecular polymorphism of syndecan-1 in human lymphoma cells. *Br J Haematol* 104(1): 152–62. (FC, WB)
- Wijdenes J. (1997) BC29: CD138 (syndecan-1) workshop panel report. In T. Kishimoto, ed. *Leukocyte Typing VI: White cell differentiation antigens*. New York: Garland Publishing Inc, pp. 249–52. (FC)

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