

Technical Data Sheet

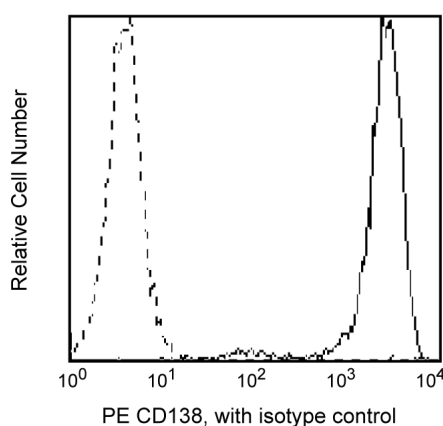
PE Mouse Anti-Human CD138

Product Information

Material Number:	561704
Alternate Name:	Syndecan; SDC; Syndecan 1; SDC1; SYND1
Size:	25 tests
Vol. per Test:	20 µl
Clone:	MI15
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	VI BP100, B005
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The MI15 monoclonal antibody specifically binds to CD138 (Syndecan-1), an 85-92 kDa single chain transmembrane protein, strongly expressed on multiple-myeloma-derived cell lines and malignant plasma cell populations. It is also expressed on pre-B cells, immature B cells, and plasma cells, but not on mature circulating B-lymphocytes. Syndecan-1 is a member of the family of transmembrane heparan sulfate proteoglycans. It is also expressed on some non-hematopoietic cells, including embryonic mesenchymal cells, vascular smooth muscle cells, endothelial and neural cells. CD138 binds to many extracellular matrix proteins through its heparan sulfate side-chains, like fibronectin, collagen types I, III, and V, tenascin, thrombospondin, and antithrombin III. It is considered an extracellular matrix receptor that may serve as a co-receptor for fibroblast growth factor and related molecules. Monoclonal antibody MI15 blocks the binding of clone B-B4 but not clone DL-101 (other anti-syndecan-1 antibodies) by flow cytometric analysis.



Profile of U266 (ATCC TIB-196) cell line analyzed by flow cytometry

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
555749	PE Mouse IgG1, κ Isotype Control	100 tests	MOPC-21
554656	Stain Buffer (FBS)	500 ml	(none)

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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. An isotype control should be used at the same concentration as the antibody of interest.

References

Barclay NA, Brown MH, Birkeland ML, et al, ed. *The Leukocyte Antigen FactsBook*. San Diego, CA: Academic Press; 1997. (Biology)

Costes V, Magen V, Legouffe E, et al. The Mi15 monoclonal antibody (anti-syndecan-1) is a reliable marker for quantifying plasma cells in paraffin-embedded bone marrow biopsy specimens. *Hum Pathol*. 1999; 30(12):1405-1411. (Biology)

Gattei V, Godeas C, Degan M, Rossi FM, Aldinucci D, Pinto A. Characterization of anti-CD138 monoclonal antibodies as tools for investigating the molecular polymorphism of syndecan-1 in human lymphoma cells. *Br J Haematol*. 1999; 104(1):152-162. (Biology)

Kishimoto T, von dem Borne AEG, Goyert SM, et al., ed. *Leucocyte Typing VI: White Cell Differentiation Antigens*. London: Garland Publishing; 1997. (Clone-specific)