

Technical Data Sheet

PE Mouse Anti-Human CD138

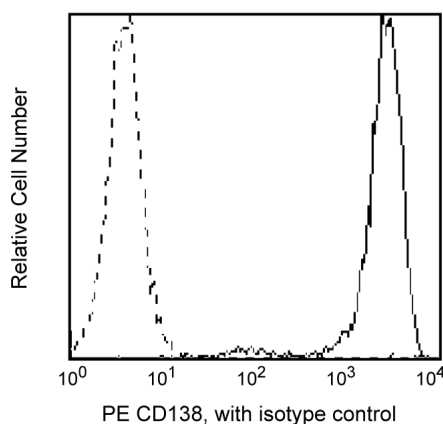
Product Information

Material Number:	552026
Alternate Name:	Syndecan-1
Size:	100 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

Reacts with 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.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Profile of U266 cell line analyzed by flow cytometry

Preparation and Storage

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 by gel filtration chromatography.

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

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

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 X 10⁶ cells in a 100- μ l experimental sample (a test).
2. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/pharming/en/colors.
5. 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.
6. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

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

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)