# **Technical Data Sheet**

# **Purified Mouse Anti-human CD138**

#### **Product Information**

Material Number:551902Alternate Name:Syndecan-1Size:0.1 mgConcentration:0.5 mg/mlClone:MI15

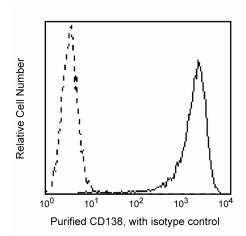
Isotype:Mouse IgG1,  $\kappa$ Reactivity:QC Testing: HumanWorkshop:VI BP100, B005

Storage Buffer: Aqueous buffered solution containing ≤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 transmemrane 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 cells (plasmacytoma cell line) analyzed by flow cytometry. Second step staining with Cat. No. 555988.

## **Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at 4° C.

## **Application Notes**

## Application

Flow cytometry Routinely Tested

## **BD Biosciences**

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## **Suggested Companion Products**

Catalog Number	Name	Size	Clone
555746	Purified Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal

#### **Product Notices**

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 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.

#### 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)

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