



1P-520-T100

## Monoclonal Antibody to CD138 Phycoerythrin (PE) conjugated (100 tests)

<b>Clone:</b>	B-A38
<b>Isotype:</b>	Mouse IgG1
<b>Specificity:</b>	The antibody B-A38 recognizes CD138 (syndecan 1), a 65-70 kDa heparan sulfate proteoglycan expressed mainly in the epidermis and plasma cells, but also in growth factor-stimulated lymphocytes.
<b>Immunogen:</b>	U266 human peripheral blood myeloma cell line
<b>Species Reactivity:</b>	Human
<b>Preparation:</b>	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
<b>Storage Buffer:</b>	The reagent is provided in phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent.
<b>Storage / Stability:</b>	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label. Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.
<b>Usage:</b>	The reagent is designed for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10 <sup>6</sup> cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label
<b>Background:</b>	<b>CD138</b> (syndecan 1) is a transmembrane proteoglycan that can bind a variety of cytokines and modulate their activity, as well as the activity of extracellular matrix components and influence many developmental processes. CD138 is expressed mainly in differentiating keratinocytes and is transiently upregulated in all layers of the epidermis upon tissue injury. It is also highly expressed on plasma cells and can be detected even on fibroblasts, vascular smooth muscle cells and endothelial cells. Up-regulation and down-regulation of CD138 on the cell surface often correlates with the gain of cancerous characteristics. Serum levels of the shedded soluble sCD138 are used as a prognostic factor of cancerogenesis.

**For laboratory research only, not for drug, diagnostic or other use.**

**Antibodies****References:**

- \*Hayashida K, Johnston DR, Goldberger O, Park P.W.: Syndecan-1 expression in epithelial cells is induced by transforming growth factor beta through a PKA-dependent pathway. *J Biol Chem.* 2006 Aug 25;281(34):24365-74.
- \*Choi DS, Kim JH, Ryu HS, Kim HC, Han JH, Lee JS, Min C.K.: Syndecan-1, a key regulator of cell viability in endometrial cancer. *Int J Cancer.* 2007 Aug 15;121(4):741-50.
- \*Manakil JF, Seymour GJ, Bartold P.M.: Effect of cytokine and antigen stimulation on peripheral blood lymphocyte syndecan-1 expression. *Oral Microbiol Immunol.* 2007 Aug;22(4):272-6.
- \*Muto T, Miyoshi K, Munesue S, Nakada H, Okayama M, Matsuo T, Noma T.: Differential expression of syndecan isoforms during mouse incisor amelogenesis. *J Med Invest.* 2007 Aug;54(3-4):331-9.
- \*Ojeh N, Hiilesvuo K, Wärrä A, Salmivirta M, Henttinen T, Määttä A.: Ectopic expression of syndecan-1 in basal epidermis affects keratinocyte proliferation and wound re-epithelialization. *J Invest Dermatol.* 2008 Jan;128(1):26-34.
- \*Jilani I, Wei C, Bekele BN, Zhang ZJ, Keating M, Wierda W, Ferrajoli A, Estrov Z, Kantarjian H, O'Brien SM, Giles FJ, Albitar M.: Soluble syndecan-1 (sCD138) as a prognostic factor independent of mutation status in patients with chronic lymphocytic leukemia. *Int J Lab Hematol.* 2008 Jan 7.
- \*Yang Y, MacLeod V, Dai Y, Khotskaya-Sample Y, Shriver Z, Venkataraman G, Sasisekharan R, Naggi A, Torri G, Casu B, Vlodaysky I, Suva LJ, Epstein J, Yaccoby S, Shaughnessy JD Jr, Barlogie B, Sanderson RD: The syndecan-1 heparan sulfate proteoglycan is a viable target for myeloma therapy. *Blood.* 2007 Sep 15;110(6):2041-8.
- \*Cheriyath V, Glaser KB, Waring JF, Baz R, Hussein MA, Borden EC: G1P3, an IFN-induced survival factor, antagonizes TRAIL-induced apoptosis in human myeloma cells. *J Clin Invest.* 2007 Oct;117(10):3107-17.
- \*Kuchen S, Robbins R, Sims GP, Sheng C, Phillips TM, Lipsky PE, Ettinger R: Essential role of IL-21 in B cell activation, expansion, and plasma cell generation during CD4+ T cell-B cell collaboration. *J Immunol.* 2007 Nov 1;179(9):5886-96.

**For laboratory research only, not for drug, diagnostic or other use.**