Antibodies

Anti-Mouse CD138 (Syndecan-1) Antibody, Clone 281-2, PE

Rat monoclonal IgG2a antibody against mouse CD138 (syndecan-1), PE-conjugated

Catalog	#60035PE	200 µg	0.2 mg/mL
	#60035PE.1	25 µg	0.2 mg/mL

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Product Description

The 281-2 antibody reacts with an extracellular epitope on the core protein of mouse CD138 (Syndecan-1), a ~60 - 100 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). CD138 is also expressed on non-hematopoietic cells such as embryonic mesenchymal cells, endothelial, epithelial and neural cells. CD138 is thought to act primarily as a receptor that 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.

Target Antigen Name:	CD138 (Syndecan-1)
Alternative Names:	B-B4, SDC1, syndecan-1
Gene ID:	20969
Species Reactivity:	Mouse
Host Species:	Rat (F344)
Clonality:	Monoclonal
Clone:	281-2
Isotype:	IgG2a, kappa
Immunogen:	Mouse NMuMG mammary gland epithelial cell line
Conjugate:	PE

Applications

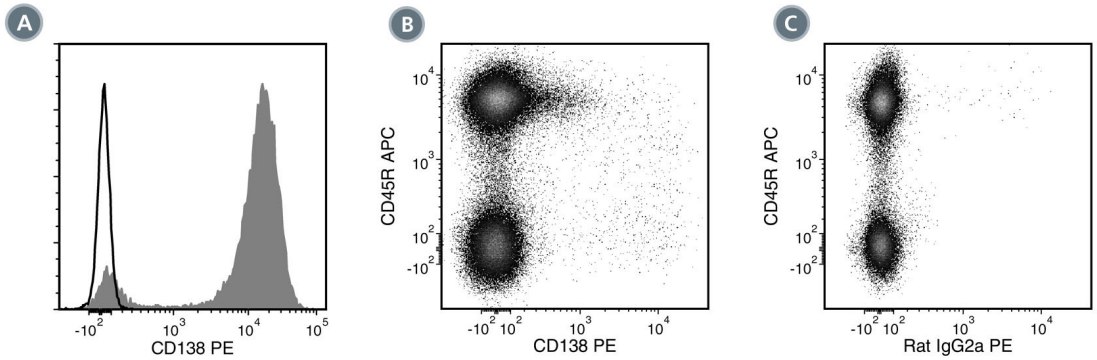
Verified:	FC
Reported:	CellSep, FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse Pan-B Cell Isolation Kit (Catalog #19844) and EasySep™ Mouse CD19 Positive Selection Kit II (Catalog #18954).

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
Purification:	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE 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, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 0.25 µg per 1 x 10^6 cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of Sp2/0 mouse myeloma cells labeled with Anti-Mouse CD138 Antibody, Clone 281-2, PE (filled histogram) or Rat IgG2a, kappa Isotype Control Antibody, Clone RTK2758, PE (Catalog #60076PE) (solid line histogram).
(B) Flow cytometry analysis of naïve C57BL/6 mouse splenocytes labeled with Anti-Mouse CD138 Antibody, Clone 281-2, PE and Anti-Mouse CD45R Antibody, Clone RA3-6B2, APC (Catalog #60019AZ).
(C) Flow cytometry analysis of naïve C57BL/6 mouse splenocytes labeled with Rat IgG2a, kappa Isotype Control Antibody, Clone RTK2758, PE and Anti-Mouse CD45R Antibody, Clone RA3-6B2, APC.

Related Products

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

References

1. Lacotte S et al. (2013) Early differentiated CD138(high) MHCII+ IgG+ plasma cells express CXCR3 and localize into inflamed kidneys of lupus mice. PLoS One 8(3): e58140. (Cell Sep, FC, IF, IHC)
2. McCarthy BA et al. (2012) NF-κB2 mutation targets survival, proliferation and differentiation pathways in the pathogenesis of plasma cell tumors. BMC Cancer 12: 203. (FC, IHC)
3. Ahuja A et al. (2008) Maintenance of the plasma cell pool is independent of memory B cells. Proc Natl Acad Sci USA 105(12): 4802–7. (FC)
4. McQuade KJ & Rapraeger AC. (2003) Syndecan-1 transmembrane and extracellular domains have unique and distinct roles in cell spreading. J Biol Chem 278(47): 46607–15. (FA/Cell migration, WB)
5. Li Q et al. (2002) Matrilysin shedding of syndecan-1 regulates chemokine mobilization and transepithelial efflux of neutrophils in acute lung injury. Cell 111(5): 635–46. (ICC, IF, IHC, WB)
6. O'Connor BP et al. (2002) Short-lived and long-lived bone marrow plasma cells are derived from a novel precursor population. J Exp Med 195(6): 737–45. (FC)
7. Wrammert J et al. (2002) Ly6C expression differentiates plasma cells from other B cell subsets in mice. Eur J Immunol 32(1): 97–103. (FC)
8. Miettinen HM & Jalkanen M. (1994) The cytoplasmic domain of syndecan-1 is not required for association with Triton X-100-insoluble material. J Cell Sci 107(6): 1571–81. (ICC, IF, IP, WB)
9. Sanderson RD et al. (1989) B lymphocytes express and lose syndecan at specific stages of differentiation. Cell Regul 1(1): 27–35. (FC, IHC, WB)
10. Jalkanen M et al. (1985) Heparan sulfate proteoglycans from mouse mammary epithelial cells: localization on the cell surface with a monoclonal antibody. J Cell Biol 101(3): 976–84. (ICC, IF, RIA, WB)