

Datasheet for ABIN2688853
anti-PRDM1 antibody



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8 Publications

Overview

Quantity:	0.1 mg
Target:	PRDM1
Reactivity:	Human, Mouse
Host:	Rat
Clonality:	Monoclonal
Conjugate:	This PRDM1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Intracellular Staining (ICS)

Product Details

Brand:	BD Pharmingen™
Immunogen:	Mouse Blimp-1 Recombinant Protein
Clone:	6D3
Isotype:	IgG2a kappa
Characteristics:	The 6D3 monoclonal antibody specifically binds to mouse B lymphocyte-induced maturation protein 1 (Blimp-1) and crossreacts with human BLIMP-1. Blimp-1 is a 98 kDa zinc finger-containing protein that is encoded by the Prdm1 gene. Blimp-1 was first discovered as a transcriptional repressor of the IFN- β promoter. Blimp-1 is critical for primordial germ cells specification in the early embryo and induction of terminal cell differentiation in multiple somatic cell types. It is largely known as a master regulator of antibody-secreting plasma cells due to its function in the repression of PAX5, CIITA and cMYC genes. Blimp-1 also controls T

cell homeostasis and effector differentiation through different mechanisms, including repression of IL-17 producing cells. Blimp-1 also plays roles in the maturation and activity of dendritic cells and natural killer cells.

Analyses of Blimp-1 Expression Panel 1. Western blot analysis of Blimp-1 expression in human myeloma cell lines. Lysates from RPMI-8226 (ATCC CLL-155, Lane 1) and U266 (ATCC TIB-196, Lane 2) cells were electrophoresed, blotted and probed with Purified Rat Anti-Blimp-1 antibody (Cat. No. 564703) followed by HRP Goat Anti-Rat Ig (Cat. No. 554017), and ECL detection reagents. The antibody detects Blimp-1 isoforms of 88-92 kDa in both cell lysates and 76-78 kDa) in the U266 cell lysate. Note: an unspecific band (~250 kDa) may be observed upon overexposure of the membranes.

Panel 2. Flow cytometric analysis of Blimp-1 expression in a human myeloma cell line. RPMI 8226 cells were fixed and permeabilized with the BD Pharmingen™ Transcription Factor Buffer Set (Cat No. 562574/562725) and stained with either Purified Rat IgG2a, κ (Cat. No. 553927, dashed line histogram) or Purified Rat Anti-Blimp-1 antibody (solid line histogram) followed by staining with PE Goat Anti-Rat Ig (Cat. No. 560767). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells. Flow cytometric analysis was performed using a BD FACSCanto™ II Flow Cytometer System.

Panel 3. Immunohistochemical staining of human Blimp-1 in human tonsils. Following antigen retrieval with BD Retrieval A Buffer (Cat No. 550524), the formalin-fixed paraffin-embedded tonsil sections were stained with either Purified Rat IgG2a κ Isotype Control (Left Image) or Purified Rat Anti-Human Blimp-1 antibody (Right Image). A three-step staining procedure that employs Biotin Goat Anti-Rat Immunoglobulin (Cat. No. 559286), Streptavidin-Horseradish Peroxidase (HRP) (Cat. No. 550946), and the DAB Substrate Kit (Cat. No. 550880) was used to develop the primary staining reagents. As shown in the Right Image, the Blimp-1 specific antibody primarily stained the nuclei of some Germinal Center cells. Original magnification: 40x.

BD Pharmingen™ Purified Rat Anti-Blimp-1 - Purified - Clone 6D3 - Isotype Rat IgG2a, κ -
Reactivity Hu, Ms - 0.1 mg

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
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Target Details

Target:	PRDM1
Alternative Name:	Blimp-1 (PRDM1 Products)
Background:	Synonyms: BLIMP-1, PRDM1, PR domain containing 1, with ZNF domain, PRDI-BF1

Target Details

Pathways: [Regulation of Muscle Cell Differentiation](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Restrictions: For Research Use only

Handling

Concentration: 0.5 mg/mL

Buffer: Aqueous buffered solution containing ≤ 0.09 % sodium azide.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: 4 °C

Storage Comment: Store undiluted at 4°C.

Publications

Product cited in: Chan, Chiang, Tsai, Su, Chen, Hou, Lin: "Absence of the transcriptional repressor Blimp-1 in hematopoietic lineages reveals its role in dendritic cell homeostatic development and function." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 183, Issue 11, pp. 7039-46, (2009) ([PubMed](#)).

Johnston, Poholek, DiToro, Yusuf, Eto, Barnett, Dent, Craft, Crotty: "Bcl6 and Blimp-1 are reciprocal and antagonistic regulators of T follicular helper cell differentiation." in: **Science (New York, N.Y.)**, Vol. 325, Issue 5943, pp. 1006-10, (2009) ([PubMed](#)).

Jourdan, Caraux, De Vos, Fiol, Larroque, Cognot, Bret, Duperray, Hose, Klein: "An in vitro model of differentiation of memory B cells into plasmablasts and plasma cells including detailed phenotypic and molecular characterization." in: **Blood**, Vol. 114, Issue 25, pp. 5173-81, (2009) ([PubMed](#)).

Martins, Cimmino, Liao, Magnusdottir, Calame: "Blimp-1 directly represses Il2 and the Il2 activator Fos, attenuating T cell proliferation and survival." in: **The Journal of experimental**

medicine, Vol. 205, Issue 9, pp. 1959-65, (2008) ([PubMed](#)).

Ohinata, Payer, OCarroll, Ancelin, Ono, Sano, Barton, Obukhanych, Nussenzweig, Tarakhovsky, Saitou, Surani: "Blimp1 is a critical determinant of the germ cell lineage in mice." in: **Nature**, Vol. 436, Issue 7048, pp. 207-13, (2005) ([PubMed](#)).

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