abcam

ab13700

Anti-PRDM1/Blimp1 antibody

Key facts

Isotype	IgG
Host species	Goat
Storage buffer	pH: 7.3 Preservative: 0.02% Sodium azide Constituents: Tris buffered saline, 0.5% BSA
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human PRDM1 aa 800-850. The exact immunogen used to generate this antibody is proprietary information. Database link O75626
Purification technique	Affinity purification Immunogen
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.

Reactivity data

ICC

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

Predicted

Species	Mouse, Rat, Cow, Dog, Pig
Dilution info	-
Notes	-

ChIP

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse, Rat, Cow, Dog, Pig
Dilution info	-
Notes	-

Flow Cyt

Expected

Species	Human
Dilution info	-
Notes	ab37373 - Goat polyclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat, Cow, Dog, Pig
Dilution info	-
Notes	-

Target data

See full target information PRDM1

Function	Transcription factor that mediates a transcriptional program in various innate and adaptive immune tissue-resident lymphocyte T cell types such as tissue-resident memory T (Trm), natural killer (trNK) and natural killer T (NKT) cells and negatively regulates gene expression of proteins that promote the egress of tissue-resident T-cell populations from non-lymphoid organs. Plays a role in the development, retention and long-term establishment of adaptive and innate tissue-resident lymphocyte T cell types in non-lymphoid organs, such as the skin and gut, but also in other nonbarrier tissues like liver and kidney, and therefore may provide immediate immunological protection against reactivating infections or viral reinfection (By similarity). Binds specifically to the PRDI element in the promoter of the beta-interferon gene (PubMed:1851123). Drives the maturation of B-lymphocytes into Ig secreting cells (PubMed:12626569). Associates with the transcriptional repressor ZNF683 to chromatin at gene promoter regions (By similarity). Binds to the promoter and acts as a transcriptional repressor of IRF8, thereby promotes transcription of osteoclast differentiation factors such as NFATC1 and EEIG1 (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	PRDM1 also referred to as Blimp-1 is a transcription factor involved in the regulation of gene expression. It has a molecular mass of approximately 106 kDa. This protein is expressed in a variety of cell types including B lymphocytes T cells and in certain tissues such as the intestine. It plays an important role in controlling the transcriptional programs necessary for cellular differentiation and development. PRDM1 functions mainly by binding to specific DNA sequences to repress the transcription of target genes acting as a master regulator in the immune system.
Biological function summary	PRDM1/Blimp-1 influences important processes like plasma cell differentiation particularly in the immune response. It is not part of a larger protein complex but

	functions by recruiting chromatin-modifying enzymes to silence target gene expression. In B cells it promotes the transition to plasma cell formation by repressing genes that would otherwise inhibit this differentiation. Blimp1 also plays a role in maintaining the differentiation state by regulating genes involved in cell survival and function.
Pathways	PRDM1/Blimp1 is primarily associated with pathways such as the B cell maturation and immunoglobulin secretion pathways. It acts downstream of signaling cascades initiated by factors like CD40 and IL-21. PRDM1 works closely with other transcription factors like XBP-1 in the pathway to drive effective plasma cell differentiation. By repressing factors such as Pax5 and Bcl6 PRDM1 ensures the proper execution of the differentiation program within these pathways.
Associated diseases and disorders	Malfunctions in PRDM1/Blimp1 are linked to autoimmune conditions like systemic lupus erythematosus and some types of lymphomas. Altered function or expression can disrupt immune homeostasis leading to the production of autoantibodies. Disorders may arise when PRDM1 fails to repress genes like those regulated by Bcl6 contributing to unregulated cell growth and abnormal immune activity. Additionally its dysfunction can be observed in certain gastrointestinal disorders where it is pivotal for maintaining gut immune homeostasis.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

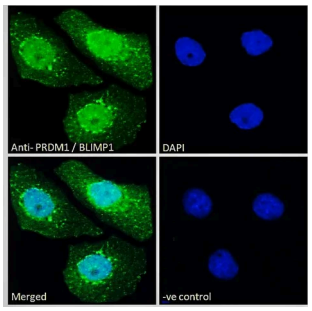
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image



Immunocytochemistry - Anti-PRDM1/Blimp1 antibody (ab13700)

PRDM1/Blimp1 Immunocytochemistry staining using goat Anti-PRDM1/Blimp1 antibody

Immunofluorescence analysis of paraformaldehyde fixed A431 cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing nuclear staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.