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Blimp-1 Antibody

Catalog # ASC10481

Product Information

Application	WB, E, IHC-P
Primary Accession	O75626
Other Accession	NP_001189, 172072684
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	91771
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Blimp-1 antibody can be used for detection of Blimp-1 by Western blot at 0.5 - 1 g/mL. Antibody can also be used for immunohistochemistry starting at 5 g/mL.

Additional Information

Gene ID	639
Other Names	Blimp-1 Antibody: BLIMP1, PRDI-BF1, BLIMP1, PR domain zinc finger protein 1, BLIMP-1, PR domain containing 1, with ZNF domain
Target/Specificity	PRDM1;
Reconstitution & Storage	Blimp-1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	Blimp-1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PRDM1
Synonyms	BLIMP1
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).

Cellular Location Nucleus. Cytoplasm

Background

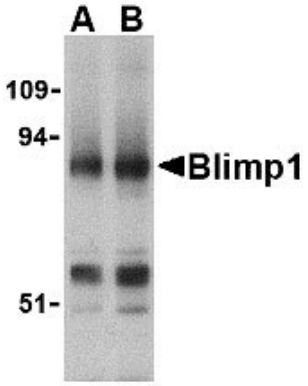
Blimp-1 Antibody: Blimp-1 was initially identified as a zinc finger-containing protein that drives the maturation of B lymphocytes into immunoglobulin-secreting cells. Together with X-box-binding protein 1 (XBP1), Blimp-1 is induced upon terminal differentiation of plasma cells. The transcriptional repressor activity of Blimp-1 has also been found to regulate T cell homeostasis and function, possibly by suppressing the expression of the cytokines IL-2 and interferon-gamma during T cell development. More recent experiments have suggested that Blimp-1 also plays a major role in the formation of primordial germ cells (PGC) in developing mammalian embryos. In these experiments, Blimp-1-deficient mutant mouse embryos form a cluster of PGC-like cells which fail to show the expected migration, proliferation, and repression of homeobox genes that normally accompany specification of primordial germ cells. Blimp-1 exists as at least two different isoforms.

References

Angelin-Duclos C, Cattoretti G, Lin K-I, et al. Commitment of B lymphocytes to a plasma cell fate is associated with Blimp-1 expression. J. Immunol. 2000; 165:5462-71.
Reimold AM, Iwakoshi NN, Manis J, et al. Plasma cell differentiation requires the transcription factor XBP-1. Nature 2001; 412:300-7.

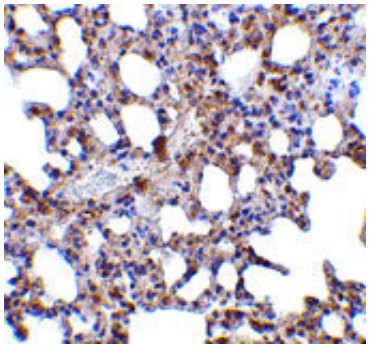
Martins GA, Cimmino L, Shapiro-Shelef M, et al. Transcriptional repressor Blimp-1 regulates T cell homeostasis and function. Nature Immunol. 2006; 7:457-65.

Images



Western blot analysis of Blimp-1 in mouse lung tissue lysate with Blimp-1 antibody at (A) 0.5 and (B) 1 µg/mL.

Immunohistochemistry of Blimp-1 in mouse lung tissue with Blimp-1 antibody at 5 µg/mL.



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