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BATF Antibody
Catalog # ASC11562

Specification

BATF Antibody - Product Information

Application	**WB, IF**
Primary Accession	Q16520
Other Accession	NP_006390, 5453563
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**14 kDa KDa**
Application Notes	**BATF antibody can be used for detection of BATF by Western blot at 0.5 µg/mL. For immunofluorescence start at 20 µg/mL.**

BATF Antibody - Additional Information

Gene ID **10538**

Target/Specificity
BATF; Multiple isoforms of BATF are known to exist. Despite its predicted molecular weight, BATF often migrates at a higher than expected molecular weight.

Reconstitution & Storage
BATF 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
BATF Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

BATF Antibody - Protein Information

Name BATF

Function
AP-1 family transcription factor that controls the differentiation of lineage-specific cells in the immune system: specifically mediates the differentiation of T-helper 17 cells (Th17), follicular T-helper cells (TfH), CD8(+) dendritic cells and class- switch recombination (CSR) in B-cells. Acts via the formation of a heterodimer with JUNB that recognizes and binds DNA sequence 5'-TGA[CG]TCA-3'. The BATF-JUNB heterodimer also forms a complex with IRF4 (or IRF8) in immune cells, leading to recognition of AICE sequence (5'- TGAnTCA/GAAA-3'), an immune-specific regulatory element, followed by cooperative binding of BATF and IRF4 (or IRF8) and activation of genes. Controls differentiation of T-helper cells producing interleukin-17 (Th17 cells) by binding to Th17-associated gene promoters: regulates expression of the transcription factor RORC itself and RORC target genes such as IL17 (IL17A or IL17B). Also involved in differentiation of follicular T-helper cells (TfH) by directing expression of BCL6 and MAF. In B-cells, involved in class-switch

recombination (CSR) by controlling the expression of both AICDA and of germline transcripts of the intervening heavy-chain region and constant heavy-chain region (I(H)-C(H)). Following infection, can participate in CD8(+) dendritic cell differentiation via interaction with IRF4 and IRF8 to mediate cooperative gene activation. Regulates effector CD8(+) T-cell differentiation by regulating expression of SIRT1. Following DNA damage, part of a differentiation checkpoint that limits self-renewal of hematopoietic stem cells (HSCs): up-regulated by STAT3, leading to differentiation of HSCs, thereby restricting self-renewal of HSCs (By similarity).

Cellular Location
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00978}. Cytoplasm. Note=Present in the nucleus and cytoplasm, but shows increased nuclear translocation after activation of T-cells

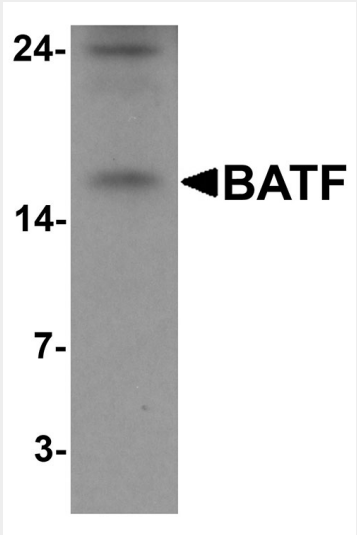
Tissue Location
Expressed at highest levels in lung, and at lower levels in placenta, liver, kidney, spleen, and peripheral blood Detected in SW480 colorectal cancer cell line and several hematopoietic tumor cell lines, including Raji Burkitt's lymphoma. Strongly expressed in mature B- and T-lymphocytes. Also expressed in moderate levels in lymph node and appendix and at low levels in thymus and bone marrow (PubMed:10777209).

BATF Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

BATF Antibody - Images



Western blot analysis of BATF in rat spleen tissue lysate with BATF antibody at 1 µg/mL.

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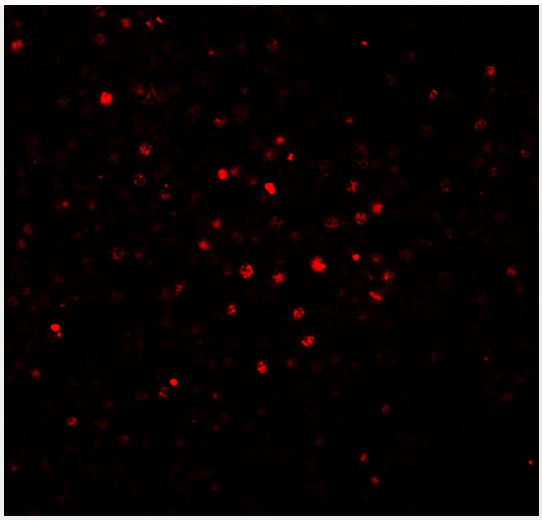

Immunofluorescence of BATF in human spleen tissue with BATF antibody at 20 µg/mL.

BATF Antibody - Background

BATF Antibody: BATF is a nuclear basic leucine zipper protein that belongs to the AP-1/ATF superfamily of transcription factors. The leucine zipper of this protein mediates dimerization with members of the Jun family of proteins. This protein is thought to be a negative regulator of AP-1/ATF transcriptional events and blocks cellular transformation by Ras and Fos. BATF also is required for the differentiation of IL-17-producing T helper (TH17) cells, a CD4+ subset of T cells that coordinates the inflammatory response in host defense. In both T cells and B cells, BATF is required for the appropriate regulation of the class-switch recombination.

BATF Antibody - References

Dorsey MJ, Tae HJ, Sollenberger KG, et al. B-ATF: a novel human bZIP protein that associates with members of the AP-1 transcription factor family. Oncogene 1995; 11:2255-65.
Echlin DR, Tae HJ, Mitin N, et al. B-ATF functions as a negative regulator of AP-1 mediated transcription and blocks cellular transformation by Ras and Fos. Oncogene 2000; 19:1752-63.
Schraml BU, Hildner K, Ise W, et al. The AP-1 transcription factor Batf controls TH17 differentiation. Nature 2009; 460:405-9.
Ise W, Kohyama M, Schraml BU, et al. The transcription factor BATF controls the global regulators of class-switch recombination in both B cells and T cells. Nat. Immunol. 2011; 12:536-43.