



Rabbit Anti-BATF antibody

SL7463R

Product Name:	BATF
Chinese Name:	B细胞转录激活因子抗体
Alias:	Activating transcription factor B; B ATF; B-ATF; B-cell-activating transcription factor; Basic leucine zipper transcription factor like; Basic leucine zipper transcriptional factor ATF like; Basic leucine zipper transcriptional factor ATF-like; Batf; BATF_HUMAN; BATF1; SF HT activated gene 2 protein; SF-HT-activated gene 2 protein; SFA 2; SFA-2; SFA2.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	14kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human BATF:31-125/125
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	B-ATF is a nuclear basic leucine zipper protein that belongs to the AP-1/ATF superfamily of transcription factors. The leucine zipper of B-ATF mediates dimerization with members of the Jun family of proteins. The B-ATF protein does not

homodimerize efficiently, but rather forms a heterodimer preferentially with c-Jun. The B-ATF/c-Jun protein complex can interact with DNA containing a consensus binding site for AP-1, suggesting that B-ATF functions as a tissue-specific modulator of the AP-1 transcription complex in human cells. B-ATF also associates with IFP35, a leucine zipper protein that translocates to the nucleus following IFN treatment. The gene encoding B-ATF, also designated SFA-2, is strongly expressed in mature T and B lymphocytes, and is up-regulated after transformation by human T-cell leukemia virus type I.

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 to 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.

Subcellular Location:

Nucleus. Cytoplasm. Present in the nucleus and cytoplasm, but shows increased nuclear translocation after activation of T-cells.

Tissue Specificity:

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).

Post-translational modifications:

Phosphorylated on serine and threonine residues and at least one tyrosine residue. Phosphorylation at Ser-43 inhibit DNA binding activity and transforms it as a negative

regulator of AP-1 mediated transcription.
Phosphorylated.

Similarity:

Belongs to the bZIP family.
Contains 1 bZIP (basic-leucine zipper) domain.

SWISS:

Q16520

Gene ID:

10538

Database links:

[Entrez Gene: 10538](#) Human

[Entrez Gene: 53314](#) Mouse

[Entrez Gene: 299206](#) Rat

[Omim: 612476](#) Human

[SwissProt: Q16520](#) Human

[SwissProt: O35284](#) Mouse

[SwissProt: D4A7E1](#) Rat

[Unigene: 509964](#) Human

[Unigene: 6672](#) Mouse

[Unigene: 16670](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.