

BATF

Purified Mouse Monoclonal Antibody
Catalog # AO2629a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	Q16520
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7C8F3
Isotype	Mouse IgG1
Calculated MW	14120
Immunogen	Purified recombinant fragment of human BATF (AA:1-126) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	10538
Other Names	SFA2; B-ATF; BATF1; SFA-2
Dilution	WB~~ 1/500 - 1/2000 IHC~~1:100~500 ICC~~N/A E~~ 1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	BATF is for research use only and not for use in diagnostic or therapeutic procedures.

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).

References

1.J Clin Invest. 2013 Nov;123(11):4641-53.2.J Immunol. 2003 Mar 1;170(5):2417-26.

Images

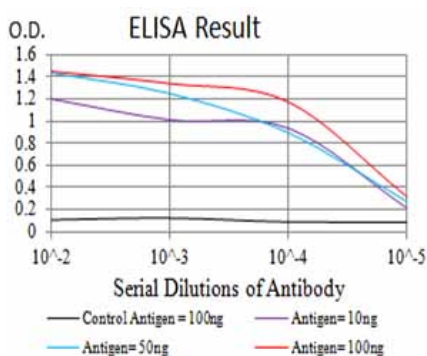


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

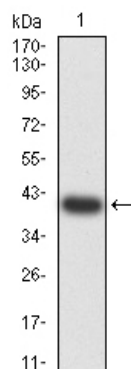


Figure 2:Western blot analysis using BATF mAb against human BATF (AA: 1-126) recombinant protein. (Expected MW is 40.1 kDa)

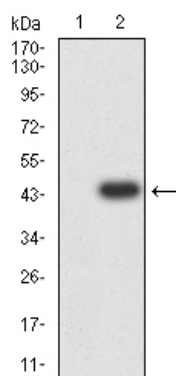


Figure 3: Western blot analysis using BATF mAb against HEK293 (1) and BATF (AA: 1-126)-hIgGFc transfected HEK293 (2) cell lysate.

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