Anti-Human BATF, monoclonal

Alternate Names: Basic leucine zipper transcriptional factor ATF-like

Cat. No. 14-101

FOR RESEARCH USE ONLY NOT FOR USE IN HUMANS

PRODUCT DESCRIPTION

UniProt Summary

UniProt
Primary Accession: Q16520

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-help

Physical Characteristics

Quantity: 1 ml (culture supernatant) or 100ug at 1mg/ml (purified)

Format: culture supernatant or purified material

Host/Isotype: mouse IgG2a

Clonality: monoclonal; ID R451.1.4G2

Formulation: culture supernatant contains 0.02% NaN3. Purified material contains 30% glycerol, PBS and 0.02% NaN3

Specificity: monospecific for human BATF ; see “Microarray Analysis” below

Reactivity: human; not tested for cross reactivity in other species

Stability/Storage: 12 months long term: -20°C; short term: 4°C; avoid freeze-thaw cycles; aliquot as required

Handling Notes: small volumes of antibody may occasionally become entrapped in the seal of the product vial during shipment and storage; briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container cap

Tested Research Applications

- **Western Immunoblotting - PASS by SOP**
- **Immunoprecipitation - Not recommended**

Antibody tested as purified IgG. Optimal dilution to be determined by user.

Quality Assurance

Notes:

1. Please refer to the SOP manual (click here) to for detailed explanation of the experimental setup and thresholds used to evaluate the results shown below.
2. Predicted MW of the target protein expressed in the western immunoblotting (WB) and immprecipitation (IP) experiment is **13.86kDa** and the three fusion tags (venus, 3xFLAG, V5) adds another **38.7kDa** to this protein. Therefore the protein is expected to migrate ~**52.56kDa** in a denatured SDS-PAGE gel.
3. See results below for any applicable cautionary notes.

Guanajibo Research and Innovation Park
4005 St B Road 114 Km 1.3
Mayaguez, PR 00682

T 787.806-4100 Ext 233
F 787.806-4006
www.cdi-lab.com

Lot-specific COA version tracker: v1.0.0

Anti-Human BATF, monoclonal

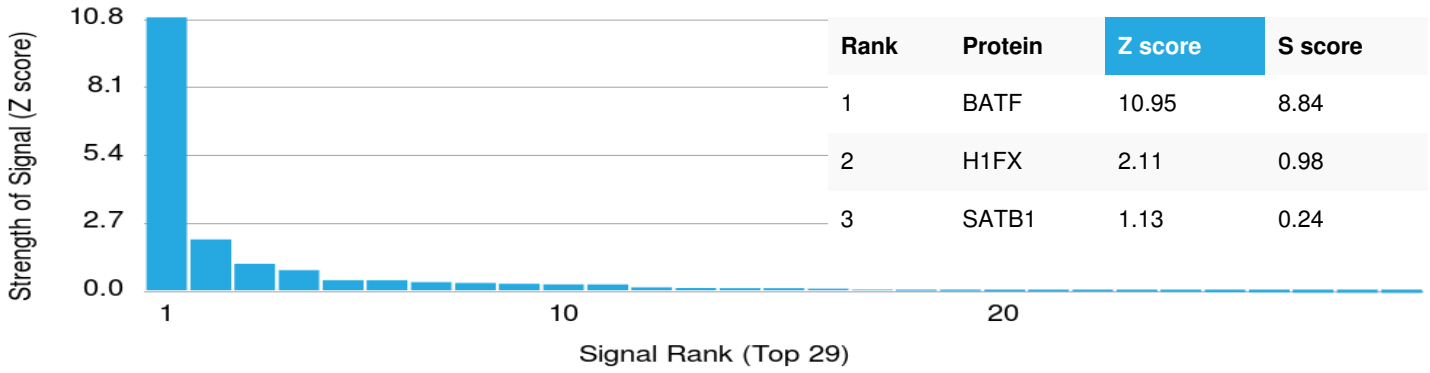
Alternate Names: Basic leucine zipper transcriptional factor ATF-like

Cat. No. 14-101

FOR RESEARCH USE ONLY NOT FOR USE IN HUMANS

PRODUCT DESCRIPTION

Quality Assurance (HuProt™ Array)



Rank	Protein	Z score	S score
1	BATF	10.95	8.84
2	H1FX	2.11	0.98
3	SATB1	1.13	0.24

About Z and S Scores: The z-score represents the strength of a signal that a mAb (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SDs) above the mean value of all signals generated on that array. To be considered a definite binding event between a mAb and a protein target, the z-score must have a value of at least 2.5 (SDs above the mean). The s-score represents the relative target specificity of a mAb, and is the difference (also in units of SDs) between the z-score a mAb generates upon binding to one protein and the next highest z-score that the mAb generates against another protein. For example, if a mAb binds to protein X with an z-score of 43 and to protein Y with an z-score of 14, then the s-score for the binding of that mAb to protein X is equal to 29.

Affinity Measurements

Binding affinity measure by OIRD

Association constant – K_{on}(1/ms): $8.23 * 10^{4}$

Dissociation constant - K_{off}(1/s): $2.74 * 10^{-8}$

Equilibrium binding constant - K_{d}(M): $4.36 * 10^{-13}$

Guanajibo Research and Innovation Park
4005 St B Road 114 Km 1.3
Mayaguez, PR 00682

T 787.806-4100 Ext 233
F 787.806-4006
www.cdi-lab.com

Lot-specific COA version tracker: v1.0.0

Anti-Human BATF, monoclonal

Alternate Names: Basic leucine zipper transcriptional factor ATF-like

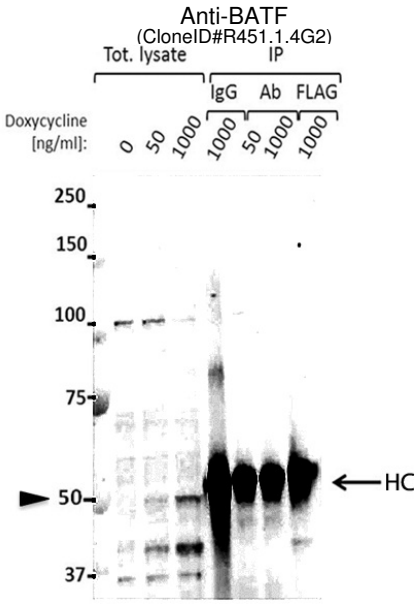
Cat. No. 14-101

FOR RESEARCH USE ONLY NOT FOR USE IN HUMANS

PRODUCT DESCRIPTION

Quality Assurance (continued)

WESTERN BLOT - Predicted MW 52.56kDa



Tet-ON HeLa cells were transfected with construct encoding BATF (NM_006399.2) with an N-terminal fusion of FLAG, YFP (Venus) and V5 tags. under a tet-inducible promoter. These cells were stimulated with 0, 50 or 1000 ng/ml doxycycline. Immunoprecipitation (IP) was carried out using 5µg of either IgG, CDI mAb Anti-BATF (cloneID# R451.1.4G2) or 1 µg of FLAG-M2 (Sigma). Immunoblotting was performed using 0.2µg/ml CDI mouse mAb Anti-BATF (cloneID# R451.1.4G2). HC=Heavy chain.

Cautionary notes for IP and WB experiments:

1. As per SOP conditions, this antibody performs poorly in WB
2. Target protein runs substantially heavier or lighter than expected

Guanajibo Research and Innovation Park
4005 St B Road 114 Km 1.3
Mayaguez, PR 00682

T 787.806-4100 Ext 233
F 787.806-4006
www.cdi-lab.com

Lot-specific COA version tracker: v1.0.0