abcam

Product datasheet

Recombinant Human BATF protein ab104928

1 Image

Overview

Product name	Recombinant Human BATF protein
Protein length	Full length protein

Description

Nature	Recombinant
Source	Escherichia coli

Amino Acid Sequence

Accession	Q16520
Species	Human
Sequence	**MGSSHHHHHH SSGLVPRGSH** MPHSSDSSDS SFSRSPPPGK QDSSDDVRRV QRREKNRIAA QKSRQRQTQK ADTLHLESED LEKQNAALRK EIKQLTEELK YFTSVLNSHE PLCSVLAAST PSPPEVVYSA HAFHQPHVSS PRFQP
Molecular weight	16 kDa including tags
Amino acids	1 to 125
Tags	His tag N-Terminus

Specifications

Our Abpromise guarantee covers the use of **ab104928** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE Mass Spectrometry
Mass spectrometry	MALDI-TOF
Purity	> 90 % SDS-PAGE. ab104928 was purified using conventional chromatography techniques.
Form	Liquid

Preparation and Storage

Preparation and Storage

Stability and Storage

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 8.00
Constituents: 0.0308% DTT, 0.316% Tris HCl, 40% Glycerol, 1.16% Sodium chloride

General Info

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.

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).

Sequence similarities

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

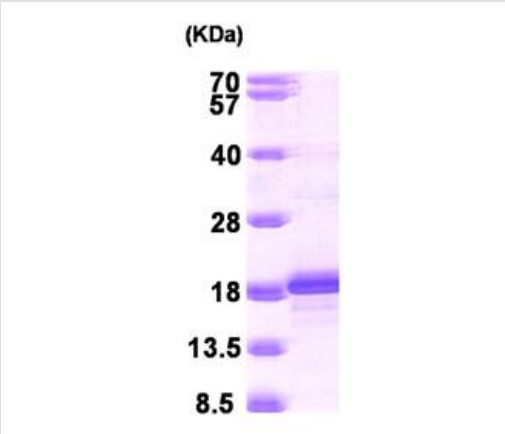
Post-translational modifications

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.

Cellular localization

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

Images



SDS-PAGE - Recombinant Human BATF protein (ab104928)

15% SDS-PAGE analysis of 3ug ab104928

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