Revision 1

Store at +4C

#27120

BATF (D7C5) Rabbit mAb (PE Conjugate)

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
FC-FP	H M	Endogenous	Rabbit IgG	#Q16520	10538

Product Usage Information

Application	Dilution
Flow Cytometry (Fixed/Permeabilized)	1:50

Storage

Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibodies. Protect from light. Do not freeze.

Specificity/Sensitivity

BATF (D7C5) Rabbit mAb (PE Conjugate) recognizes endogenous levels of total BATF protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human BATF protein

Description

This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated BATF (D7C5) Rabbit mAb #8638.

Background

Basic leucine zipper transcriptional factor ATF-like (BATF) is a basic leucine zipper (bZIP) transcription factor and is part of the AP-1/ATF family that forms inhibitory dimers with members of the Jun family (1-3). Expression of BATF is largely restricted with highest levels found in mature T cells, and it is induced in B cells following immune responses including viral infection (1,2). BATF expression is also induced by IL-6 via a Stat3-dependent mechanism (4). BATF plays an important role in the differentiation of immune cell lineages (5-7). Studies of BATF-deficient mice have demonstrated a critical role for BATF in the formation of IL-17-expressing Th17 cells, in part, by regulating the expression of IL-17 (5,6). BATF knockouts are resistant to experimental autoimmune encephalomyelitis (EEA), consistent with the role of Th17 cells in this model for autoimmunity (5). Additional studies have found that BATF is important in generating antibody class switching. BATF is required for the generation of follicular helper T cells (Tfh), by regulating BCL6 and c-Maf (6,7). In B cells, BATF controls the expression of activation-induced cytidine deaminase (AID) and regulates class-switched antibody responses (7). Taken together, these studies suggest that BATF is a key regulator of distinct populations of immune cells.

Background References

1. Dorsey, M.J. et al. (1995) *Oncogene* 11, 2255-65.
2. Hasegawa, H. et al. (1996) *Biochem Biophys Res Commun* 222, 164-70.
3. Echlin, D.R. et al. (2000) *Oncogene* 19, 1752-63.
4. Senga, T. et al. (2002) *Oncogene* 21, 8186-91.
5. Schraml, B.U. et al. (2009) *Nature* 460, 405-9.
6. Betz, B.C. et al. (2010) *J Exp Med* 207, 933-42.
7. Ise, W. et al. (2011) *Nat Immunol* 12, 536-43.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key

FC-FP: Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human **M:** Mouse

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Limited Uses

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