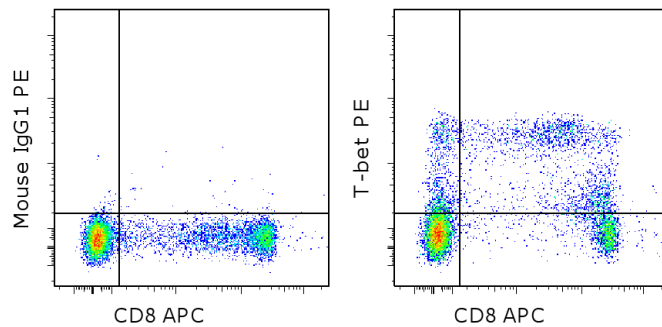


## Anti-Human/Mouse T-bet PE

**Catalog Number:** 12-5825

**Also known as:** Th1-specific T box transcription factor, T-box expressed in T cells

**RUO: For Research Use Only. Not for use in diagnostic procedures.**



Intracellular staining of normal human peripheral blood cells with Anti-Human CD8a APC (cat. 17-0086) and 0.25 ug of Mouse IgG1 K Isotype Control PE (cat. 12-4714) (left) or 0.25 ug of Anti-Human/Mouse T-bet PE (right) using the Fcγ3 Fixation/Permeabilization Buffers (cat. 00-5521). Cells in the lymphocyte gate were used for analysis.

### Product Information



**Contents:** Anti-Human/Mouse T-bet PE

**Catalog Number:** 12-5825

**Clone:** eBio4B10 (4B10, 4-B10)

**Concentration:** 0.2 mg/mL

**Host/Isotype:** Mouse IgG1, kappa



**Formulation:** aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

**Temperature Limitation:** Store at 2-8°C. Do not freeze. Light sensitive material.



**Batch Code:** Refer to vial



**Use By:** Refer to vial

### Description

The eBio4B10 monoclonal antibody reacts with mouse, rhesus monkey and human T-bet. T-bet is a Th1-specific T-box transcription factor critical to the development of the Th1 CD4+ T cell lineage. This is known based on the observations that T-Bet deficient mice have impaired Th1 cell development, and that ectopic expression of T-Bet results in development skewed to the Th1 lineage. T-Bet expression is induced by the Th1 cytokine IFN gamma, and T-Bet also regulates the expression of IFN gamma, likely, at least in part, through the modification of DNA accessibility and histone remodeling. In addition to IFN gamma, T-Bet is also known to regulate the expression of IL-12R beta and IL-2. Moreover, T-Bet plays a role in class-switch recombination in B-cells.

### Applications Reported

This eBio4B10 antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

### Applications Tested

This eBio4B10 antibody has been tested by intracellular staining and flow cytometric analysis of normal human peripheral blood cells using the Fcγ3 Buffer Set (cat. 00-5523) and protocol. This antibody can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

**For intracellular staining with the eBio4B10 monoclonal antibody, it is recommended to use the eBioscience Fcγ3 Staining Buffer Set (cat. 00-5523) and protocol. Please click here for Staining Protocol (refer to Protocol B: One step protocol for intracellular (nuclear) proteins)**

### References

Ness-Schwickerath KJ, Jin C, Morita CT. Cytokine requirements for the differentiation and expansion of IL-17A- and IL-22-producing human Vγ2Vδ2 T cells. J Immunol. 2010 Jun 15;184(12):7268-80. (4B10, crossreactivity in rhesus)

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Usui T, Preiss JC, Kanno Y, Yao ZJ, Bream JH, O'Shea JJ, Strober W. T-bet regulates Th1 responses through essential effects on GATA-3 function rather than on IFNG gene acetylation and transcription. *J Exp Med.* 2006 Mar 20;203(3):755-66.

Hwang ES, Hong JH, Glimcher LH. IL-2 production in developing Th1 cells is regulated by heterodimerization of RelA and T-bet and requires T-bet serine residue 508. *J Exp Med.* 2005 Nov 7;202(9):1289-300.

Dorfman DM, van den Elzen P, Weng AP, Shahsafaei A, Glimcher LH. Differential expression of T-bet, a T-box transcription factor required for Th1 T-cell development, in peripheral T-cell lymphomas. *Am J Clin Pathol.* 2003 Dec;120(6):866-73. (**4B10** IHC paraffin PubMed)

Szabo SJ, Kim ST, Costa GL, Zhang X, Fathman CG, Glimcher LH. A novel transcription factor, T-bet, directs Th1 lineage commitment. *Cell.* 2000 Mar 17;100(6):655-69. (**4B10**, FC, WB, PubMed)

### Related Products

00-5521 Foxp3 Fixation/Permeabilization Concentrate and Diluent

00-5523 Foxp3 / Transcription Factor Staining Buffer Set

12-4714 Mouse IgG1 K Isotype Control PE (P3.6.2.8.1)

46-0042 Anti-Mouse CD4 PerCP-eFluor® 710 (RM4-5)

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