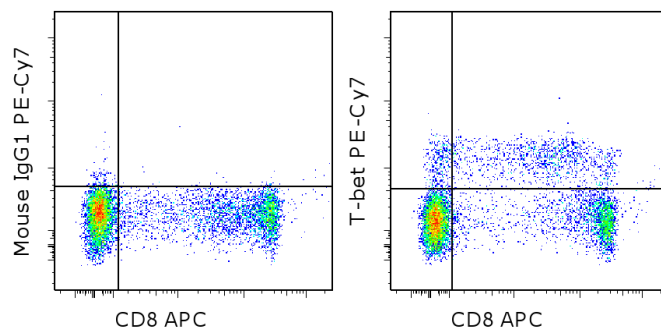


Anti-Human/Mouse T-bet PE-Cyanine7

Catalog Number: 25-5825

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 0.06 ug of Mouse IgG1 K Isotype Control PE-Cyanine7 (cat. 25-4714) (left) or 0.06 ug of Anti-Human/Mouse T-bet PE-Cyanine7 (right) using the Foxp3 Fixation/Permeabilization Buffers (cat. 00-5521). Cells in the lymphocyte gate were used for analysis.

Product Information

Contents: Anti-Human/Mouse T-bet PE-Cyanine7



Catalog Number: 25-5825

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. This tandem dye is sensitive to photo-induced oxidation. Protect this vial from light during storage, handling & experimental procedures.

Batch Code: Refer to vial

Use By: Refer to vial

Contains sodium azide



Description

The eBio4B10 monoclonal antibody reacts with mouse 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 (4B10, 4-B10) antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

Applications Tested

This eBio4B10 (4B10, 4-B10) antibody has been tested by intracellular staining and flow cytometric analysis of normal human peripheral blood cells using the Foxp3/Transcription Factor Buffer Set (cat. 00-5523) and protocol. Please see Best Protocol section; (refer to Protocol B: One step protocol for intracellular (nuclear) proteins). This can be used at less than or equal to 0.125 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Light sensitivity: This tandem dye is sensitive photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 uL cell sample + 100 uL IC Fixation

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Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

References

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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

17-0086 Anti-Human CD8a APC (OKT8 (OKT-8))

25-4714 Mouse IgG1 K Isotype Control PE-Cyanine7 (P3.6.2.8.1)

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