

## PE Anti-human/mouse T-bet Antibody

<b>Catalog Number:</b>	111509, 111510
<b>Size:</b>	25 tests, 100 tests
<b>Target Name:</b>	T-bet, T box 21, T-box expressed in T cells
<b>Regulatory Status:</b>	RUO

### PRODUCT DETAILS

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<b>Clone:</b>	4B10
<b>Application:</b>	Flow Cytometry
<b>Reactivity:</b>	Human, Mouse
<b>Format:</b>	PE
<b>Isotype:</b>	Mouse IgG1
<b>Antibody Type:</b>	Monoclonal
<b>Formulation:</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA
<b>Protein Concentration:</b>	Supplied at a lot-specific concentration.
<b>Storage&amp;Handling:</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
<b>Recommended Usage:</b>	For flow cytometric staining, it is recommended to use 5 uL of this reagent per 0.5-1.0 million cells in a 100 µL volume. Optimal reagent performance should be determined by titration for each specific application. PE has an excitation max at 565 nm and an emission max at 575 nm.
<b>Excitation Laser:</b>	Blue Laser (488 nm) Green/Yellow laser (532/561nm)
<b>Isotype Control:</b>	301407

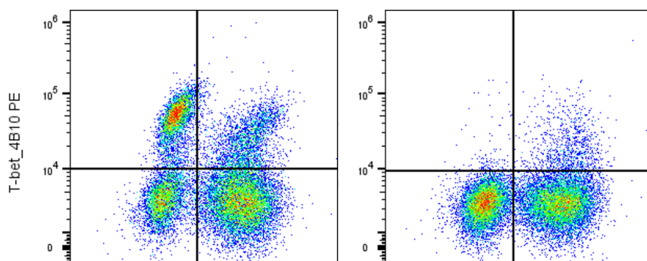
### BACKGROUND INFORMATION

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T-bet (TBX21) is a T-box transcription factor that plays a central role in the differentiation and function of Th1 CD4<sup>+</sup> T cells in both humans and mice. Its expression is induced by IFN- $\gamma$  and it directly regulates the transcription of IFN- $\gamma$ , IL-12 receptor  $\beta$ , and IL-2 through modulation of chromatin accessibility. Loss of T-bet impairs Th1 lineage commitment, while ectopic expression promotes Th1 polarization. Beyond T cells, T-bet also contributes to B cell class-switch recombination. Due to its conserved function across species, T-bet is a key regulator of cell-mediated immunity and inflammatory responses.

### PRODUCT DATA

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Human peripheral blood lymphocytes were stained with FITC

Anti-human CD3 clone OKT3 and intracellular stained with either PE Anti-human/mouse T-bet antibody clone 4B10 (left panel) or an isotype control (right panel)

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