

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human T-bet/TBX21 in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 525831
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human T-bet/TBX21 Glu326-Asn535 Accession # Q9UL17
<b>Conjugate</b>	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Intracellular Staining by Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	Human peripheral blood mononuclear cells (PBMCs) treated with Anti-Human IL-4 Polyclonal Antibody (Catalog # AB-204-NA; 20 µg/mL) and Recombinant Human IL-12 (Catalog # 219-IL; 10 ng/mL) for 5 days to induce Th1 cell development were fixed and permeabilized with FlowX FoxP3 Fixation & Permeabilization Buffer Kit (Catalog # FC012)

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

#### BACKGROUND

T-box expressed in T cells (T-bet), also known as T-box transcription factor TBX21, is a 62 kDa member of the T-box family of transcription factors and the Tbr1 subfamily. Human T-bet is 535 amino acids in length and contains a T-box DNA binding domain (aa 136-327). Human T-bet shares 88% aa sequence identity with mouse T-bet. T-bet is a nuclear protein highly apparent in Th1 cells. Northern blot analysis revealed that it is also expressed in lung, thymus and spleen. Functionally, T-bet controls the expression of the Th1 cytokine, IFN-γ, and initiates Th1 lineage development from naïve Th precursor cells by both activating Th1 genetic programs and by repressing the opposing Th2 programs.

#### PRODUCT SPECIFIC NOTICES

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