

**TBX21 / T-bet Antibody (C-Terminus)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS16034****Specification**

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**TBX21 / T-bet Antibody (C-Terminus) - Product Information**

Application	WB, IF, IHC
Primary Accession	<a href="#">O9UL17</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58kDa KDa

**TBX21 / T-bet Antibody (C-Terminus) - Additional Information****Gene ID** 30009**Other Names**

T-box transcription factor TBX21, T-box protein 21, T-cell-specific T-box transcription factor T-bet, Transcription factor TBLYM, TBX21, TBET, TBLYM

**Target/Specificity**

TBX21 antibody is human and mouse reactive.

**Reconstitution & Storage**

Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

**Precautions**

TBX21 / T-bet Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

**TBX21 / T-bet Antibody (C-Terminus) - Protein Information****Name** TBX21**Synonyms** TBET, TBLYM**Function**

Lineage-defining transcription factor which initiates Th1 lineage development from naive Th precursor cells both by activating Th1 genetic programs and by repressing the opposing Th2 and Th17 genetic programs (PubMed:<a href="http://www.uniprot.org/citations/10761931" target="\_blank">10761931</a>). Activates transcription of a set of genes important for Th1 cell function, including those encoding IFN- gamma and the chemokine receptor CXCR3. Induces permissive chromatin accessibility and CpG methylation in IFNG (PubMed:<a href="http://www.uniprot.org/citations/33296702" target="\_blank">33296702</a>). Activates IFNG and CXCR3 genes in part by recruiting chromatin remodeling complexes including KDM6B, a SMARCA4-containing SWI/SNF-complex, and an H3K4me2-methyltransferase complex to their promoters and all of these complexes serve to establish a more permissive chromatin state

conductive with transcriptional activation (By similarity). Can activate Th1 genes also via recruitment of Mediator complex and P-TEFb (composed of CDK9 and CCNT1/cyclin-T1) in the form of the super elongation complex (SEC) to super-enhancers and associated genes in activated Th1 cells (PubMed:<a href="http://www.uniprot.org/citations/27292648" target="\_blank">27292648</a>). Inhibits the Th17 cell lineage commitment by blocking RUNX1-mediated transactivation of Th17 cell-specific transcriptional regulator RORC. Inhibits the Th2 cell lineage commitment by suppressing the production of Th2 cytokines, such as IL-4, IL-5, and IL-13, via repression of transcriptional regulators GATA3 and NFATC2. Protects Th1 cells from amplifying aberrant type-I IFN response in an IFN-gamma abundant microenvironment by acting as a repressor of type-I IFN transcription factors and type-I IFN-stimulated genes. Acts as a regulator of antiviral B-cell responses; controls chronic viral infection by promoting the antiviral antibody IgG2a isotype switching and via regulation of a broad antiviral gene expression program (By similarity). Required for the correct development of natural killer (NK) and mucosal-associated invariant T (MAIT) cells (PubMed:<a href="http://www.uniprot.org/citations/33296702" target="\_blank">33296702</a>).

**Cellular Location**

Nucleus

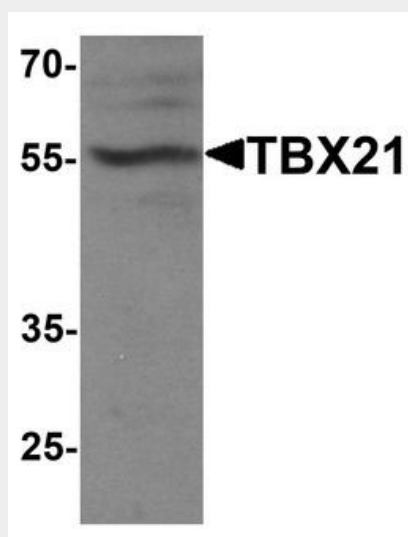
**Tissue Location**

T-cell specific..

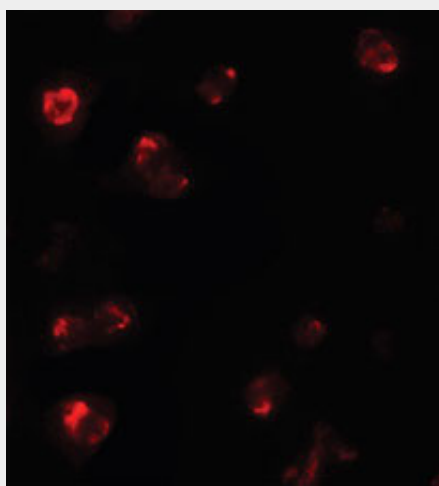
**TBX21 / T-bet Antibody (C-Terminus) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

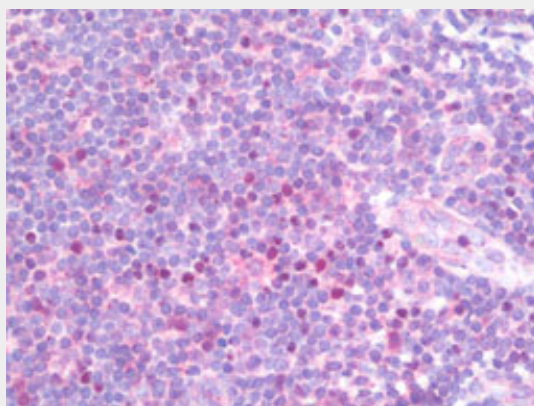
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**TBX21 / T-bet Antibody (C-Terminus) - Images**

Western blot analysis of TBX21 in 293 cell lysate with TBX21 antibody at 1 ug/ml.



Immunofluorescence of TBX21 in 293 cells with TBX21 antibody at 5 ug/ml.



Anti-TBX21 / T-bet antibody IHC staining of human tonsil.

#### **TBX21 / T-bet Antibody (C-Terminus) - Background**

Transcription factor that controls the expression of the TH1 cytokine, interferon-gamma. Initiates TH1 lineage development from naive TH precursor cells both by activating TH1 genetic programs and by repressing the opposing TH2 programs.

#### **TBX21 / T-bet Antibody (C-Terminus) - References**

Yang S.,et al.Submitted (SEP-1998) to the EMBL/GenBank/DDBJ databases.  
Szabo S.J.,et al.Cell 100:655-669(2000).  
Akahoshi M.,et al.Hum. Genet. 117:16-26(2005).