

**TBX21 Antibody**  
Rabbit mAb  
Catalog # AP92075

## Specification

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### TBX21 Antibody - Product Information

Application	<b>IHC, FC</b>
Primary Accession	<a href="#">O9UL17</a>
Clonality	<b>Monoclonal</b>
<b>Other Names</b>	
T bet; T box 21; T PET; TBET; TBLYM; Tbx21; TPET; Transcription factor TBLYM;	

Isotype	<b>Rabbit IgG</b>
Host	<b>Rabbit</b>
Calculated MW	<b>58328 Da</b>

### TBX21 Antibody - Additional Information

Purification	<b>Affinity-chromatography</b>
Immunogen	<b>A synthesized peptide derived from human TBX21</b>
Description	<b>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.</b>
Storage Condition and Buffer	<b>Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.</b>

### TBX21 Antibody - 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 conducive 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 Antibody - 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 Antibody - Images**