

#### T Box Protein 21 Rabbit mAb

Catalog # AP77848

# **Specification**

### T Box Protein 21 Rabbit mAb - Product Information

Application IHC
Primary Accession O9UL17
Reactivity Human
Host Rabbit

Clonality Monoclonal Antibody

Calculated MW 58328

#### T Box Protein 21 Rabbit mAb - Additional Information

Gene ID 30009

Other Names TBX21

**Dilution** IHC~~1/50-1/100

Format Liquid

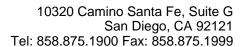
## T Box Protein 21 Rabbit mAb - Protein Information

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 accessibilty 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 transcriptinal 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..

# T Box Protein 21 Rabbit mAb - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# T Box Protein 21 Rabbit mAb - Images

