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TBX21 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI11163

Product Information

Application	WB
Primary Accession	Q9JKD8
Other Accession	NM_019507, NP_062380
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Dog, Bovine, Sheep
Predicted	Human, Mouse, Rat, Rabbit, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	57852

Additional Information

Gene ID	57765
Alias Symbol	TBT1, Tbet, Tblym
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
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 100 ul of distilled water. Final anti-TBX21 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	TBX21 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

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. Activates transcription of a set of genes important for Th1 cell function, including those encoding IFN-gamma and the chemokine receptor CXCR3. 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 (PubMed:10761931, PubMed:17923685, PubMed:21095589). 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:27292648). Inhibits the Th17 cell lineage commitment by blocking RUNX1-mediated transactivation of Th17 cell-specific transcriptinal regulator RORC (PubMed:21151104). 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 (PubMed:15662016, PubMed:21690296, PubMed:23616576). 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 (PubMed:28623086). 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 (PubMed:27430722).

Cellular Location Nucleus

Tissue Location T-cell specific (PubMed:10761931, PubMed:11087660). Expressed in regulatory T (TReg) cells (PubMed:28607488)

References

Hirata,T., et al., (2006) Development 133 (8), 1433-1443Reconstitution and Storage:For short term use, store at 2-8C up to 1 week. For long term storage, store at -20C in small aliquots to prevent freeze-thaw cycles.

Images

WB Suggested Anti-TBX21 Antibody Titration: 1.25µg/ml
ELISA Titer: 1:312500
Positive Control: SP2/0 cell lysate

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.