

T-bet (PTR1291) mouse mAb

Catalog No :	YM4701
Reactivity :	Human;Mouse;
Applications :	WB;IF;ELISA
Target :	TBX21
Gene Name :	TBX21 TBET TBLYM
Protein Name :	T-box transcription factor TBX21 (T-box protein 21) (T-cell-specific T-box transcription factor T-bet) (Transcription factor TBLYM)
Human Gene Id :	30009
Human Swiss Prot No :	Q9UL17
Mouse Gene Id :	57765
Mouse Swiss Prot No :	Q9JKD8
Immunogen :	Synthesized peptide derived from human T-bet. AA range: 100-200
Specificity :	This antibody detects endogenous levels of T-bet protein.
Formulation :	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source :	Mouse, Monoclonal/IgG2a, kappa
Dilution :	WB 1:500-2000. IF 1:100-500. ELISA 1:1000-5000
Purification :	Protein G
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight : 58kD

Observed Band : 62kD

Background : T-box 21(TBX21) Homo sapiens This gene is a member of a phylogenetically conserved family of genes that share a common DNA-binding domain, the T-box. T-box genes encode transcription factors involved in the regulation of developmental processes. This gene is the human ortholog of mouse Tbx21/Tbet gene. Studies in mouse show that Tbx21 protein is a Th1 cell-specific transcription factor that controls the expression of the hallmark Th1 cytokine, interferon-gamma (IFNG). Expression of the human ortholog also correlates with IFNG expression in Th1 and natural killer cells, suggesting a role for this gene in initiating Th1 lineage development from naive Th precursor cells. [provided by RefSeq, Jul 2008],

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 (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

Subcellular Nuclear

Location :**Expression :** T-cell specific.

Products Images