

#13232 Store at -20°C

# T-bet/TBX21 (D6N8B) XP® Rabbit mAb



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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IHC-P, IF-IC, FC-FP, ChIP, ChIP-seq, C&R	H	Endogenous	58-68	Rabbit IgG	#Q9UL17	30009

## Product Usage Information

For optimal ChIP and ChIP-seq results, use 10 µl of antibody and 10 µg of chromatin (approximately 4 x 10<sup>6</sup> cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

The CUT&RUN dilution was determined using CUT&RUN Assay Kit #86652.

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Immunohistochemistry (Paraffin)	1:1600
Immunofluorescence (Immunocytochemistry)	1:400
Flow Cytometry (Fixed/Permeabilized)	1:100 - 1:400
Chromatin IP	1:50
Chromatin IP-seq	1:50
CUT&RUN	1:50

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #27112.

## Specificity / Sensitivity

T-bet/TBX21 (D6N8B) XP® Rabbit mAb recognizes endogenous levels of total T-bet/TBX21 protein.

## Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly465 of human T-bet/TBX21 protein.

## Background

The *T-box* gene family consists of transcription factors characterized by a related DNA-binding domain (T-box) of approximately 200 amino acids (1,2). The *T-box* genes exhibit diverse temporal and spatial patterns in the developing embryo. Studies have demonstrated members of this family play crucial roles during embryogenesis in a wide range of organisms by regulating cell fate decisions to establish the early body plan and to regulate later processes underlying organogenesis (3-5). Mutations in *T-box* genes are associated with many developmental defects (6). Recent studies also indicate potential roles in cancer by members of the T-box family (7-9).

T-bet, also as known as TBX21, plays a critical role in development and maintenance of type 1 helper T (Th1) and T-bet deficient mice display impaired Th1 differentiation (10,11).

## Background References

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6. Baldini, A. (2004) *Curr Opin Cardiol* 19, 201-4.
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10. Ho, I.C. and Glimcher, L.H. (2002) *Cell* 109 Suppl, S109-20.
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**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**WB:** Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)  
**IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)  
**ChIP:** Chromatin IP **ChIP-seq:** Chromatin IP-seq **C&R:** CUT&RUN

**Cross-Reactivity Key**

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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