Revision 1

#5214 Store at -20C

T-bet/TBX21 (V365) Antibody

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H	Endogenous	65	Rabbit	#Q9UL17	30009

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

Storage

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

Specificity / Sensitivity

T-bet/TBX21 (V365) Antibody detects endogenous levels of total T-bet protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val365 of human T-bet/TBX21 protein. Antibodies are purified by protein A and peptide affinity chromatography.

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

1. Wilkinson, D.G. et al. (1990) *Nature* 343, 657-9.
2. Papaioannou, V.E. and Silver, L.M. (1998) *Bioessays* 20, 9-19.
3. Showell, C. et al. (2004) *Dev Dyn* 229, 201-18.
4. Papaioannou, V.E. (2001) *Int Rev Cytol* 207, 1-70.
5. Hoogaars, W.M. et al. (2007) *Cell Mol Life Sci* 64, 646-60.
6. Baldini, A. (2004) *Curr Opin Cardiol* 19, 201-4.
7. Abrahams, A. et al. (2010) *IUBMB Life* 62, 92-102.
8. Rowley, M. et al. (2004) *J Mammary Gland Biol Neoplasia* 9, 109-18.
9. Yang, X.R. et al. (2009) *Nat Genet* 41, 1176-8.
10. Ho, I.C. and Glimcher, L.H. (2002) *Cell* 109 Suppl, S109-20.
11. Peng, S.L. (2006) *Cell Mol Immunol* 3, 87-95.

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

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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