

TCF12/HEB (D2C10) Rabbit mAb

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Applications: W, IP	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 85	Source/Isotype: Rabbit IgG	UniProt ID: #Q99081	Entrez-Gene Id: 6938
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
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.

Specificity/Sensitivity

TCF12/HEB (D2C10) Rabbit mAb recognizes endogenous levels of total TCF12/HEB protein. This antibody recognizes the TCF12/HEB^{Can} isoform, but not the TCF12/HEB^{Alt} isoform.

Species predicted to react based on 100% sequence homology

Monkey, Bovine, Dog, Horse

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly115 of human TCF12 protein.

Background

TCF12/HEB (T cell factor 12/HeLa E-box binding protein) is a member of the E proteins that are type I basic helix-loop-helix domain-containing transcription factors that bind directly to the E-box DNA consensus sequence and control numerous developmental processes (1,2). E protein family members include E2A, E2-2, and TCF12/HEB. TCF12/HEB forms homo- or heterodimers with other E proteins to regulate transcription of target genes that play a critical role in the development of T cells, B cells, and plasmacytoid dendritic cells (2-4). The *TCF12/HEB* gene has two transcriptional start sites leading to the generation of the long form called HEB^{Can}, and the short form, HEB^{Alt} (5). The two isoforms are thought to have distinct functions, with HEB^{Can} playing a role throughout T cell development, while HEB^{Alt} functions in the efficient generation of T cell precursors (5).

Background References

1. Murre, C. (2005) *Nat Immunol* 6, 1079-86.
2. Braunstein, M. and Anderson, M.K. (2012) *Clin Dev Immunol* 2012, 678705.
3. Quong, M.W. et al. (2002) *Annu Rev Immunol* 20, 301-22.
4. Kee, B.L. (2009) *Nat Rev Immunol* 9, 175-84.
5. Wang, D. et al. (2006) *J Immunol* 177, 109-19.

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

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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