

#11825 Store at -20C

TCF12/HEB (D2C10) Rabbit mAb**Cell Signaling**
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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	H	Endogenous	85	Rabbit IgG	#Q99081	6938

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/HEBCan isoform, but not the TCF12/HEBAlt 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 HEBCan, and the short form, HEBAlt (5). The two isoforms are thought to have distinct functions, with HEBCan playing a role throughout T cell development, while HEBAlt 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**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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