Revision 1

Store at +4C

#6444

TCF1/TCF7 (C63D9) Rabbit mAb (Alexa Fluor® 488 Conjugate)

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
FC-FP	H M	Endogenous	Rabbit IgG	#P36402	6932

Product Usage Information

Application	Dilution
Flow Cytometry (Fixed/Permeabilized)	1:50

Storage

Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

Specificity/Sensitivity

TCF1/TCF7 (C63D9) Rabbit mAb (Alexa Fluor® 488 Conjugate) detects endogenous levels of total TCF1/TCF7 protein. This antibody does not recognize the dominant negative isoforms of TCF1/TCF7 lacking the amino-terminal β-catenin binding domain and does not cross-react with LEF1.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to a region surrounding Pro95 of human TCF1/TCF7 protein.

Description

This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct flow cytometry analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated TCF1/TCF7 (C63D9) Rabbit mAb #2203.

Background

LEF1 and TCF are members of the high mobility group (HMG) DNA-binding protein family of transcription factors that consists of the following: Lymphoid Enhancer Factor 1 (LEF1), T Cell Factor 1 (TCF1/TCF7), TCF3/TCF7L1, and TCF4/TCF7L2 (1). LEF1 and TCF1/TCF7 were originally identified as important factors that regulate early lymphoid development (2) and act downstream in Wnt signaling. LEF1 and TCF bind to Wnt response elements to provide docking sites for β-catenin, which translocates to the nucleus to promote the transcription of target genes upon activation of Wnt signaling (3). LEF1 and TCF are dynamically expressed during development and aberrant activation of the Wnt signaling pathway is involved in many types of cancers, including colon cancer (4,5).

TCF1/TCF7 has several isoforms due to alternative splicing and transcription from an alternative promoter. The isoforms generated by the alternative promoter do not contain the amino-terminal β-catenin binding domain and therefore may function in a dominant negative manner (6). TCF1/TCF7 displays dynamic expression both in the total amount and the type of isoforms expressed in T cells during development and differentiation (7).

Background References

1. Waterman, M.L. (2004) *Cancer Metastasis Rev* 23, 41-52.
2. Schilham, M.W. and Clevers, H. (1998) *Semin Immunol* 10, 127-32.
3. Brantjes, H. et al. (2002) *Biol Chem* 383, 255-61.
4. Reya, T. and Clevers, H. (2005) *Nature* 434, 843-50.
5. Logan, C.Y. and Nusse, R. (2004) *Annu Rev Cell Dev Biol* 20, 781-810.
6. Waterman, M.L. (2004) *Cancer Metastasis Rev* 23, 41-52.
7. Willinger, T. et al. (2006) *J Immunol* 176, 1439-46.

Species Reactivity

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

Applications Key

FC-FP: Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human **M:** Mouse

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