Revision 1

Store at -20C

#2286

LEF1 (C18A7) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R	Endogenous	25-58	Rabbit IgG	#Q9UJU2	51176

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, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

LEF1 (C18A7) Rabbit mAb detects endogenous level of total LEF1 proteins, including the dominant negative forms due to the usage of alternative promoter.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val282 of human LEF1.

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).

LEF1 has several isoforms due to alternative splicing. LEF1 also has an alternative promoter that is preferentially active in lymphocytes. The isoforms generated by this alternative promoter have no amino-terminal β-catenin binding domain, therefore, they may function in a dominant negative manner (6-8).

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. Hovanes, K. et al. (2000) *Nucleic Acids Res* 28, 1994-2003.
7. Hovanes, K. et al. (2001) *Nat Genet* 28, 53-7.
8. Kobielak, A. et al. (2001) *Acta Biochim Pol* 48, 221-6.

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 **M:** Mouse **R:** Rat

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