Revision 1

Store at -20C

#3742

E2F-1 Antibody

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, ChIP	H	Endogenous	70	Rabbit	#Q01094	1869

Product Usage Information

For optimal ChIP results, use 5 µl of antibody and 10 µg of chromatin (approximately 4 x 10^6 cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

Application	Dilution
Western Blotting	1:1000
Chromatin IP	1:100

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

E2F1 Antibody detects endogenous levels of total E2F1 protein. The antibody does not cross-react with other proteins.

Species predicted to react based on 100% sequence homology

Rat, Bovine

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the carboxy-terminal residues of human E2F1. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The E2F transcription factors are essential for regulation of the cell cycle (1,2). Physiological E2F is a heterodimer composed of an E2F subunit together with a DP subunit (3, 4). Six members of the E2F family have been identified, and each E2F subunit has a DNA binding and a dimerization domain. E2F-1 to -5 activate transcription. E2F-1 to -3 bind pRb, and E2F-4 and -5 bind p107 or p130, and these interactions are under cell cycle control (5-8). E2F-1 has oncogenic properties in vivo and in vitro. E2F-1 can induce apoptosis through p53-dependent and -independent mechanisms. E2F-1 is stress-responsive, and is regulated by a PI3-kinase-like kinase family such as the ATM/ATR kinases (9-11).

Background References

1. Helin, K. (1998) *Curr. Opin. Genet. Dev.* 8, 28-35.
2. Dyson, N. (1998) *Genes Dev.* 12, 2245-2262.
3. Helin, K. et al. (1993) *Genes Dev.* 7, 1850-1861.
4. Wu, C. et al. (1995) *Mol. Cell. Biol.* 15, 2536-2546.
5. Takahashi, Y. et al. (2000) *Genes Dev.* 14, 804-816.
6. Wu, L. et al. (2001) *Nature* 414, 457-462.
7. Gaubatz, S. et al. (2000) *Mol. Cell* 6, 729-735.
8. Hurford, R. K. et al. (1997) *Genes Dev.* 11, 1447-1463.
9. Tsai, K. Y. et al. (1998) *Mol. Cell* 2, 293-304.
10. Garcia, I. et al. (2000) *Cell Growth Differ.* 11, 91-98.
11. Lin, W. C. et al. (2001) *Genes Dev.* 15, 1833-1844.

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 **ChIP:** Chromatin IP

Cross-Reactivity Key

H: Human

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