#3742 Store at -20C

E2F-1 Antibody



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3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:Reactivity:Sensitivity:MW (kDa):Source:UniProt ID:Entrez-Gene Id:WB, ChIPHEndogenous70Rabbit#Q010941869

Product Usage Information

For optimal ChIP results, use 5 μ l of antibody and 10 μ g of chromatin (approximately 4 x 10⁶ cells) per IP. This antibody has been validated using SimpleChIP[®] Enzymatic Chromatin IP Kits.

ApplicationDilutionWestern Blotting1:1000Chromatin IP1:100

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

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- 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

WB: Western Blotting ChIP: Chromatin IP

Cross-Reactivity Key

E2F-1 Antibody (#3742) Datasheet Without Images Cell Signaling Technology

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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