

DP-1 Transcription Factor Ab-6 (Clone 1DP06; same as TFD10)

Mouse Monoclonal Antibody

Cat. #MS-1056-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)**Cat. #MS-1056-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml)** (Purified Ab without BSA and Azide)**Cat. #MS-1056-PCL (0.1ml)** (Positive Control for Western Blot)**Please note this data sheet has been changed effective December 9, 2011**

Description: DP family contains at least two members, DP-1 and -2. Structurally, DP-1 and -2 are relatively conserved, yet their expression appears to be tissue specific. E2F-1, a functional target for the tumor suppressor protein Rb, heterodimers with DP-1 and forms an active E2F transcriptional complex. The interaction between members of the E2F and the DP families is mediated, in part, by a leucine repeat which is weakly conserved between the two families.

Mol. Wt. of Antigen: 45kDa**Epitope:** aa 83-204**Species Reactivity:** Human, Mouse, Rat. Others-not known.**Clone Designation:** 1DP06 (same as TFD10)**Ig Isotype / Light Chain:** IgG₁ / κ**Immunogen:** Recombinant DP-1 protein**Applications and Suggested Dilutions:**

- Western Blotting (0.5-1.0µg/ml for 2hrs at RT)

The optimal dilution for a specific application should be determined by the investigator.**Positive Control:** MAD109 or Raji cells.**Cellular Localization:** Cytoplasm and nucleus**Storage and Stability:**

Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

Supplied As:

200µg/ml antibody purified from the ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml.

Suggested References:

1. Adams, P. D., and W. G. Kaelin Jr. 1996. p. 79-95. In P. J. Farnham (ed.), Transcriptional control of cell growth: the E2F gene family, vol. 208. Springer, Berlin Heidelberg.
2. Asken, D. S., et al.. (1991)Oncogene. 6:1915-1922.

Limitations and Warranty:

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. Lab Vision is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Material Safety Data:

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

For Research Use Only

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Additional Suggested References:

- Ikeda, M.-A., L. Jakoi, and J. R. Nevins. 1996. A unique role for the Rb protein in controlling E2F accumulation during cell growth and differentiation. *Proc. Natl. Acad. Sci. USA.* 93:3215-3220.
- Ivey-Hoyle, M., R. Conroy, H. E. Huber, P. J. Goodhart, A. Oliff, and D. C. Heimbrosk. 1993. Cloning and characterization of E2F-2, a novel protein with the biochemical properties of transcription factor E2F. *Mol. Cell. Biol.* 13:7802-7812.
- Johnson, D. G., W. D. Cress, L. Jakoi, and J. R. Nevins. 1994. Oncogenic capacity of the E2F1 gene. *Proc. Natl. Acad. Sci. USA.* 91:12823-12827.
- Johnson, D. G., J. K. Schwarz, W. D. Cress, and J. R. Nevins. 1993. Expression of transcription factor E2F1 induces quiescent cell to enter S phase. *Nature.* 365:349-352.
- Jordan, K. L., A. R. Haas, L. T. J, and D. J. Hall. 1994. Detailed analysis of the basic domain of the E2F1 transcription factor indicates that it is unique among bHLH proteins. *Oncogene.* 9:117-1185.
- Kaelin Jr, W. G., W. Krek, W. R. Sellers, J. A. DeCaprio, F. Ajchenbaum, C. S. Fuchs, T. Chittenden, Y. Li, P. J. Farnham, M. A. Blonar, D. M. Livingston, and E. K. Flemington. 1992. Expression cloning of a cDNA encoding a retinoblastoma-binding protein with E2F-like properties. *Cell.* 70:351-364.
- Kiess, M., R. M. Gill, and P. A. Hamel. 1995. Expression and activity of the retinoblastoma protein (pRB)-family proteins, p107 and p130, during L6 myoblast differentiation. *Cell Growth & Differ.* 6:1287-1298.
- Kovesdi, I., R. Reichel, and J. R. Nevins. 1986. Identification of a transcription factor involved in E1a trans-activation. *Cell.* 45:219-228.
- Kowalik, T. F., J. DeGregory, J. K. Schwarz, and J. R. Nevins. 1995. E2F1 overexpression in quiescent fibroblasts leads to induction of cellular DNA synthesis and apoptosis. *J. Virol.* 69:2491-2500.
- Krek, W., D. M. Livingston, and S. Shirodkar. 1993. Binding to DNA and the retinoblastoma gene product promoted by complex formation of different E2F family members. *Science.* 262:1557-1560.
- La Thangue, N. B., and P. W. J. Rigby. 1987. An adenovirus E1A-like transcription factor is regulated during the differentiation of murine embryonal carcinoma stem cells. *Cell.* 49:507-513.
- Lees, E., B. Faha, V. Dulic, S. I. Reed, and E. Harlow. 1992. Cyclin E/cdk2 and cyclin A/cdk2 associate with p107 and E2F in a temporally distinct manner. *Genes & Develop.* 6:1874-1885.
- Lees, J. A., M. Saito, M. Vidal, M. Valentine, T. Look, E. Harlow, N. Dyson, and K. Helin. 1993. The retinoblastoma protein binds to a family of E2F transcription factors. *Mol. Cell. Biol.* 13:7813-7825.
- Melillo, R. M., K. Helin, D. R. Lowy, and J. T. Schiller. 1994. Positive and negative regulation of cell proliferation by E2F-1: influence of protein level and human papillomavirus oncoproteins. *Mol. Cell. Biol.* 14:8241-8249.
- Moberg, K., M. A. Starz, and J. A. Lees. 1996. E2F-4 switches from p130 to p107 and pRb in response to cell cycle entry. *Mol. Cell. Biol.* 16:1436-1449.
- Mudryj, M., S. H. Devoto, S. W. Hiebert, T. Hunter, J. Pines, and J. R. Nevins. 1991. Cell cycle regulation of the E2F transcription factor involves an interaction with cyclin A. *Cell.* 65:1243-1253.
- Ormondroyd, E., S. de la Luna, and L. Thangue. 1995. A new member of the DP family, DP-3, with distinct protein products suggests a regulatory role for alternative splicing in the cell cycle transcription factor DRTF1/E2F. *Oncogene.* 11:1437-1446.
- Qin, X. Q., D. M. Livingston, W. G. Kaelin Jr, and P. d. Adams. 1994. Dereglated transcription factor E2F-1 expression leads to S-phase entry and p53-mediated apoptosis. *Proc. Natl. Acad. Sci. USA.* 91:10918-10922.
- Rao, L., M. Debbas, P. Sabbatini, D. Hockenbery, S. Korsmeyer, and E. White. 1992. The adenovirus E1a proteins induce apoptosis, which is inhibited by the E1b 19-kDa and bcl-2 proteins. *Proc. Natl. Acad. Sci. USA.* 89:7742-7746.
- Richon, V. M., and G. Venta-Perez. 1996. Changes in E2F DNA-binding activity during induced erthroid differentiation. *Cell Growth & Differ.* 7:31-42.
- Sardet, C., M. Vidal, D. Cobrinik, Y. Geng, C. Onufryk, A. Chen, and R. A. Weinberg. 1995. E2F-4 and E2F-5, two members of the E2F family, are expressed in the early phases of the cell cycle. *Proc. Natl. Acad. Sci. USA.* 92:2403-2407.
- Schwarz, J. K., C. H. Bassing, I. Kovesdi, M. B. Datto, M. Blazing, S. George, X.-F. Wang, and J. R. Nevins. 1995. Expression of the E2F1 transcription factor overcomes b transforming growth factor-mediated growth arrest. *Proc. Natl. Acad. Sci. USA.* 92:483-487.
- Schwarz, J. K., S. H. Devoto, E. J. Smith, S. P. Chellapan, L. Jakoi, and J. R. Nevins. 1993. Interactions of the p107 and RB proteins with E2F



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during the cell proliferation response. EMBO J. 12:1013-1020.

24. Shan, B., and W.-H. Lee. 1994. Deregulated expression of E2F-1 induces S-phase entry and leads to apoptosis. Mol. Cell. Biol. 14:8166-8173.
25. Shan, B., X. Zhu, P.-L. Chen, T. Durfee, Y. Yang, D. Sharp, and W.-H. Lee. 1992. Molecular cloning of cellular genes encoding retinoblastoma-associated proteins: identification of a gene with properties of the transcription factor E2F. Mol. Cell. Biol. 12:5620-5631.
26. Shin, E. K., A. Shin, C. Paulding, B. Schaffhausen, and A. S. Yee. 1995. Multiple changes in E2F function and regulation occur upon muscle differentiation. Mol. Cell. Biol. 15:2252-2262.

