

# E2F1 Antibody

Purified Mouse Monoclonal Antibody Catalog # AO1734a

## **Product Information**

**Application** WB, IHC, FC, E

Primary Accession Q01094

**Reactivity** Human, Mouse

**Host** Mouse **Clonality** Monoclonal

Clone Names8G9IsotypeIgG1Calculated MW46920

**Description** The protein encoded by this gene is a member of the E2F family of

transcription factors. The E2F family plays a crucial role in the control of cell cycle and action of tumor suppressor proteins and is also a target of the transforming proteins of small DNA tumor viruses. The E2F proteins contain several evolutionally conserved domains found in most members of the family. These domains include a DNA binding domain, a dimerization domain which determines interaction with the differentiation regulated transcription factor proteins (DP), a transactivation domain enriched in acidic amino acids, and a tumor suppressor protein association domain which is embedded within the transactivation domain. This protein and another 2 members, E2F2 and E2F3, have an additional cyclin binding domain. This protein binds

preferentially to retinoblastoma protein pRB in a cell-cycle dependent

manner. It can mediate both cell proliferation and

p53-dependent/independent apoptosis.

**Immunogen** Purified recombinant fragment of human E2F1 (AA: 69-223) expressed in E.

Coli.

**Formulation** Purified antibody in PBS with 0.05% sodium azide

## **Additional Information**

**Gene ID** 1869

Other Names Transcription factor E2F1, E2F-1, PBR3, Retinoblastoma-associated protein 1,

RBAP-1, Retinoblastoma-binding protein 3, RBBP-3, pRB-binding protein

E2F-1, E2F1, RBBP3

Dilution WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~1/1000

**Storage** Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store

at -20°C in small aliquots to prevent freeze-thaw cycles.

E2F1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## **Protein Information**

#### Name

E2F1 {ECO:0000303|PubMed:8964493, ECO:0000312|HGNC:HGNC:3113}

#### **Function**

Transcription activator that binds DNA cooperatively with DP proteins through the E2 recognition site, 5'-TTTC[CG]CGC-3' found in the promoter region of a number of genes whose products are involved in cell cycle regulation or in DNA replication (PubMed:10675335, PubMed:12717439, PubMed:17050006, PubMed:17704056, PubMed:18625225, PubMed:28992046). The DRTF1/E2F complex functions in the control of cell-cycle progression from G1 to S phase (PubMed:10675335, PubMed:12717439, PubMed:17704056). E2F1 binds preferentially RB1 in a cell-cycle dependent manner (PubMed:10675335, PubMed:12717439, PubMed:17704056). It can mediate both cell proliferation and TP53/p53-dependent apoptosis (PubMed:8170954). Blocks adipocyte differentiation by binding to specific promoters repressing CEBPA binding to its target gene promoters (PubMed:20176812). Directly activates transcription of PEG10 (PubMed:17050006, PubMed:18625225, PubMed:28992046). Positively regulates transcription of RRP1B (PubMed:20040599).

### **Cellular Location**

**Nucleus** 

## References

1.Cancer Res. 2010 Dec 1;70(23):9711-20. 2.Mol Cancer Ther. 2010 May;9(5):1265-73.

## **Images**

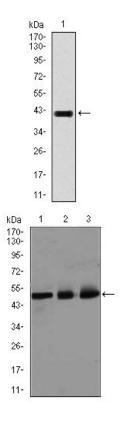


Figure 1: Western blot analysis using E2F1 mAb against human E2F1 recombinant protein. (Expected MW is 42.7 kDa)

Figure 2: Western blot analysis using E2F1 mouse mAb against HeLa (1), SK-N-SH (2), and NIH3T3 (3) cell lysate.

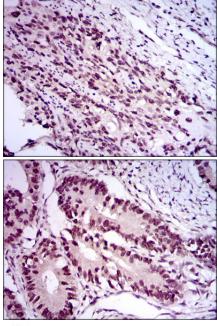


Figure 3: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using E2F1 mouse mAb with DAB staining.

Figure 4: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using E2F1 mouse mAb with DAB staining.

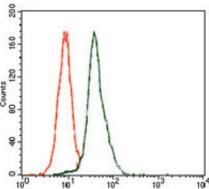


Figure 5: Flow cytometric analysis of HeLa cells using E2F1 mouse mAb (green) and negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.