

**E2F1 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1734a****Specification****E2F1 Antibody - Product Information**

Application	E, WB, IHC, FC
Primary Accession	<a href="#">Q01094</a>
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	46.9kDa KDa

**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. <br /> <br />

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**E2F1 Antibody - 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**

E~~1/10000  
WB~~1/500 - 1/2000  
IHC~~1/200 - 1/1000  
FC~~1/200 - 1/400

**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.

## Precautions

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

## E2F1 Antibody - 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:<a href="http://www.uniprot.org/citations/10675335" target="\_blank">10675335</a>, PubMed:<a href="http://www.uniprot.org/citations/12717439" target="\_blank">12717439</a>, PubMed:<a href="http://www.uniprot.org/citations/17050006" target="\_blank">17050006</a>, PubMed:<a href="http://www.uniprot.org/citations/17704056" target="\_blank">17704056</a>, PubMed:<a href="http://www.uniprot.org/citations/18625225" target="\_blank">18625225</a>, PubMed:<a href="http://www.uniprot.org/citations/28992046" target="\_blank">28992046</a>). The DRTF1/E2F complex functions in the control of cell-cycle progression from G1 to S phase (PubMed:<a href="http://www.uniprot.org/citations/10675335" target="\_blank">10675335</a>, PubMed:<a href="http://www.uniprot.org/citations/12717439" target="\_blank">12717439</a>, PubMed:<a href="http://www.uniprot.org/citations/17704056" target="\_blank">17704056</a>). E2F1 binds preferentially RB1 in a cell-cycle dependent manner (PubMed:<a href="http://www.uniprot.org/citations/10675335" target="\_blank">10675335</a>, PubMed:<a href="http://www.uniprot.org/citations/12717439" target="\_blank">12717439</a>, PubMed:<a href="http://www.uniprot.org/citations/17704056" target="\_blank">17704056</a>). It can mediate both cell proliferation and TP53/p53- dependent apoptosis (PubMed:<a href="http://www.uniprot.org/citations/8170954" target="\_blank">8170954</a>). Blocks adipocyte differentiation by binding to specific promoters repressing CEBPA binding to its target gene promoters (PubMed:<a href="http://www.uniprot.org/citations/20176812" target="\_blank">20176812</a>). Directly activates transcription of PEG10 (PubMed:<a href="http://www.uniprot.org/citations/17050006" target="\_blank">17050006</a>, PubMed:<a href="http://www.uniprot.org/citations/18625225" target="\_blank">18625225</a>, PubMed:<a href="http://www.uniprot.org/citations/28992046" target="\_blank">28992046</a>). Positively regulates transcription of RRP1B (PubMed:<a href="http://www.uniprot.org/citations/20040599" target="\_blank">20040599</a>).

### Cellular Location

Nucleus

## E2F1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

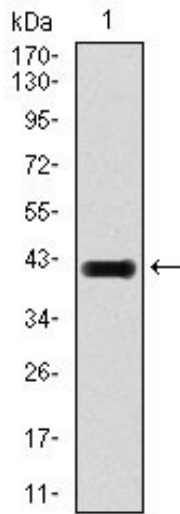
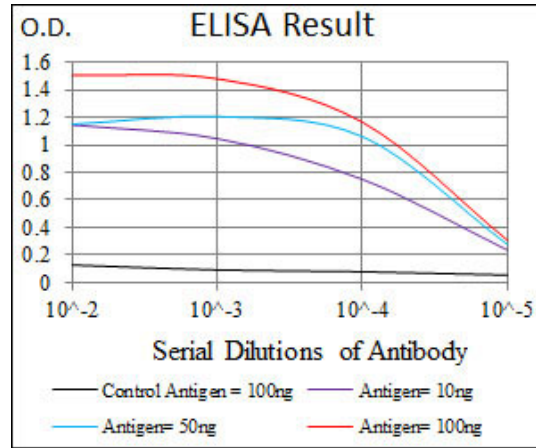


Figure 1: Western blot analysis using E2F1 mAb against human E2F1 recombinant protein. (Expected MW is 42.7 kDa)

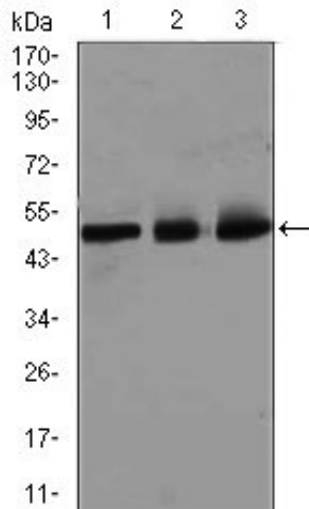


Figure 2: Western blot analysis using E2F1 mouse mAb against HeLa (1), SK-N-SH (2), and NIH3T3 (3) cell lysate.

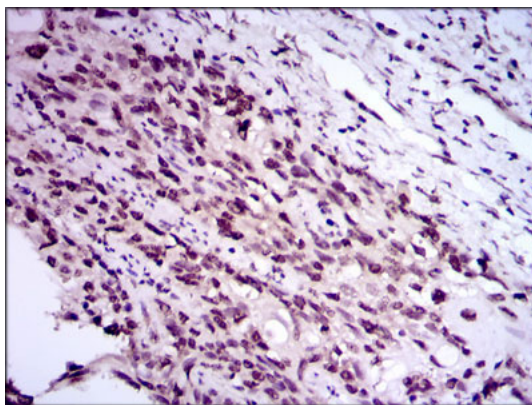


Figure 3: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using E2F1 mouse mAb with DAB staining.

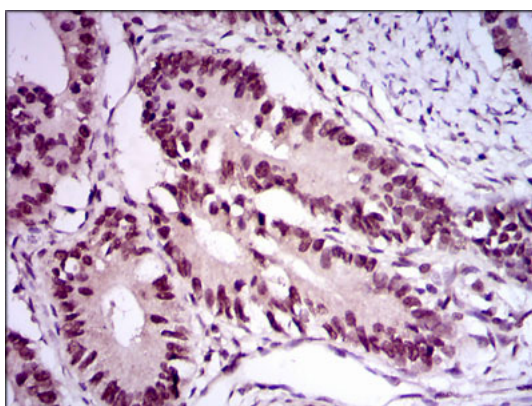


Figure 4: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using E2F1 mouse mAb with DAB staining.

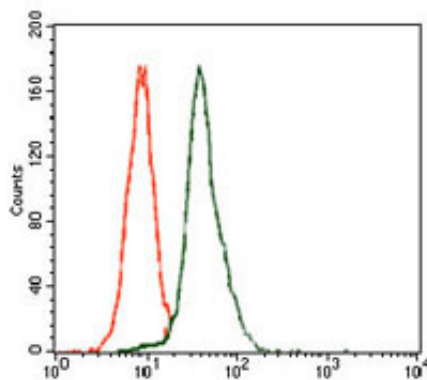


Figure 5: Flow cytometric analysis of HeLa cells using E2F1 mouse mAb (green) and negative control (red).

### E2F1 Antibody - References

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