

**Phospho-E2F1(S337) Antibody**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP3091a**

**Specification**

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**Phospho-E2F1(S337) Antibody - Product Information**

Application	<b>WB, IHC-P,E</b>
Primary Accession	<a href="#">O01094</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Calculated MW	<b>46920</b>

**Phospho-E2F1(S337) 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

**Target/Specificity**

This E2F1 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S337 of human E2F1.

**Dilution**

WB~~1:500  
IHC-P~~1:50~100

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Phospho-E2F1(S337) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Phospho-E2F1(S337) 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:[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

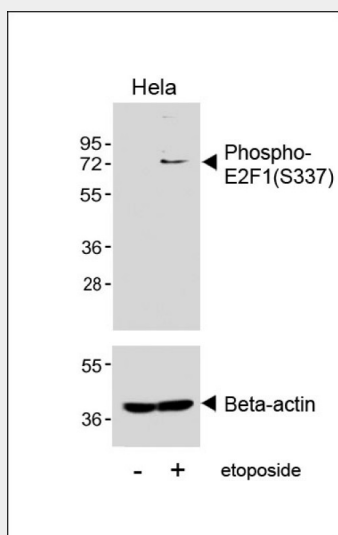
Nucleus

### Phospho-E2F1(S337) Antibody - Protocols

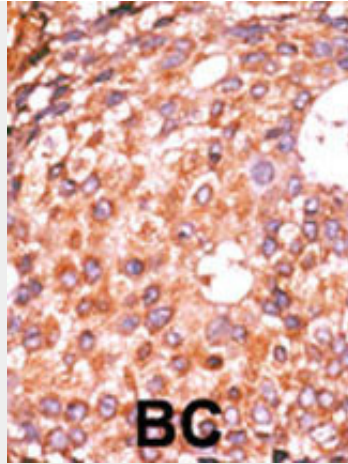
Provided below are standard protocols that you may find useful for product applications.

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

### Phospho-E2F1(S337) Antibody - Images



Western blot analysis of lysates from HeLa cell line, untreated or treated with etoposide(25 $\mu$ M, 24h), using Phospho-E2F1(S337) Antibody(upper) or Beta-actin (lower).



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

#### **Phospho-E2F1(S337) Antibody - Background**

E2F1 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 evolutionarily 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.

#### **Phospho-E2F1(S337) Antibody - References**

O'Donnell, K.A., et al., *Nature* 435(7043):839-843 (2005).  
Wang, C., et al., *J. Biol. Chem.* 280(13):12339-12343 (2005).  
Joshi, B., et al., *Oncogene* 24(13):2204-2217 (2005).  
Saberwal, G., et al., *Int. J. Hematol.* 80(2):146-154 (2004).  
Chaussepied, M., et al., *Mol. Cell* 16(5):831-837 (2004).