

**Anti-E2F-1 pS364 (RABBIT) Antibody**  
**E2F-1 phospho S364 Antibody**  
**Catalog # ASR5277****Specification**

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**Anti-E2F-1 pS364 (RABBIT) Antibody - Product Information**

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human, Mouse
Clonality	Polyclonal
Application	WB, IHC, E, I, LCI
Application Note	This affinity purified antibody has been tested for use in ELISA, immunohistochemistry and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 47 kDa in size corresponding to phosphorylated E2F-1 by western blotting in the appropriate cell lysate or extract. Less than 0.5% reactivity is observed against the non-phosphorylated form of the immunizing peptide. This antibody is phospho specific for pS364 of E2F-1.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near amino acids 350-375 of Human E2F-1.
Preservative	0.01% (w/v) Sodium Azide

**Anti-E2F-1 pS364 (RABBIT) Antibody - Additional Information****Gene ID** 1869**Other Names**  
1869**Purity**

This affinity purified antibody is directed against the phosphorylated form of human E2F-1 at the pS364 residue. The product was affinity purified from monospecific antiserum by immunoaffinity purification. Antiserum was first purified against the phosphorylated form of the immunizing peptide. The resultant affinity purified antibody was then cross adsorbed against the non-phosphorylated form of the immunizing peptide. Reactivity occurs against human E2F-1 pS364 protein and the antibody is specific for the phosphorylated form of the protein. Reactivity

with non-phosphorylated human E2F-1 is minimal by ELISA. The antibody does not cross-react with E2F-1 phosphorylated at other sites. A BLAST analysis was used to suggest reactivity with this protein from human and chimpanzee based on 100% homology for the immunogen sequence. Cross reactivity with E2F-1 homologues from other sources has not been determined.

#### **Storage Condition**

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

#### **Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

### **Anti-E2F-1 pS364 (RABBIT) 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**

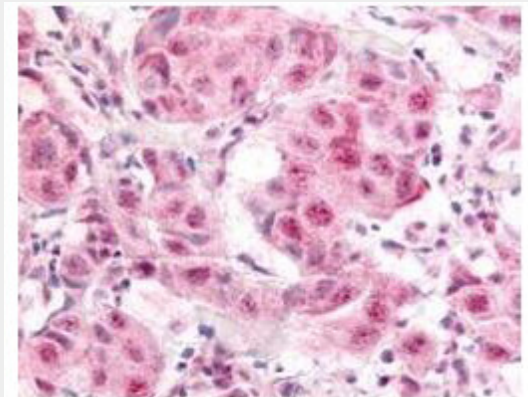
Nucleus

### **Anti-E2F-1 pS364 (RABBIT) 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](#)

#### **Anti-E2F-1 pS364 (RABBIT) Antibody - Images**



Rockland's Affinity Purified anti- E2F-1 pS364 antibody was used at a 10 µg/ml to detect nuclear and occasionally cytoplasmic signal in a variety of tissues including multi-human, multi-brain and multi-cancer slides. Within the multi-tumor block, the antibody showed variable levels of nuclear staining between individual tumors, with some tumors showing strong staining. This image shows E2F-1 pS364 staining of human breast carcinoma. Tissue was formalin-fixed and paraffin embedded. Personal Communication, Tina Roush, LifeSpanBiosciences, Seattle, WA.

#### **Anti-E2F-1 pS364 (RABBIT) Antibody - Background**

E2F-1 (also known as transcription factor E2F-1) is a transcription activator that binds DNA cooperatively with DP proteins through the E2 recognition site, 5'-TTTC[CG]CGC-3'. 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 domains conserved through evolution that are found in most members of the family. These domains include a DNA binding domain, a dimerization domain, 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 two other 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 as well as it can block adipocyte differentiation by binding to specific promoters repressing CEBPA binding to its target gene promoters. Anti-E2F-1 pS364 Antibody is useful for researchers involved in transcription factor and DNA binding research.