

# Product datasheet

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ARG59547 anti-E2F1 antibody

Package: 50 μg Store at: -20°C

#### **Summary**

Host

Product Description Rabbit Polyclonal antibody recognizes E2F1

Rabbit

Tested Reactivity Hu
Predict Reactivity Hm
Tested Application WB

Clonality Polyclonal

IsotypeIgGTarget NameE2F1SpeciesHuman

Immunogen Synthetic peptide corresponding to aa. 246-260 of Human E2F1. (VTCQDLRSIADPAEQ)

Conjugation Un-conjugated

Alternate Names RBAP1; Retinoblastoma-associated protein 1; Retinoblastoma-binding protein 3; RBBP3; pRB-binding

protein E2F-1; RBBP-3; E2F-1; Transcription factor E2F1; RBP3; PBR3; RBAP-1

## **Application Instructions**

Application table	Application	Dilution
	WB	0.1 - 0.5 μg/ml
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

### **Properties**

Form Liquid

Purification Affinity purification with immunogen.

Buffer 0.9% NaCl, 0.2% Na2HPO4, 0.05% Thimerosal, 0.05% Sodium azide and 5% BSA.

Preservative 0.05% Thimerosal and 0.05% Sodium azide

Stabilizer 5% BSA

Concentration 0.5 mg/ml

Storage instruction For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

before use.

Note For laboratory research only, not for drug, diagnostic or other use.

#### Bioinformation

Gene Symbol

E2F1

Gene Full Name

E2F transcription factor 1

Background

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. [provided by RefSeq, Jul 2008]

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. The DRTF1/E2F complex functions in the control of cell-cycle progression from G1 to S phase. E2F1 binds preferentially RB1 in a cell-cycle dependent manner. It can mediate both cell proliferation and TP53/p53-dependent apoptosis. Blocks adipocyte differentiation by binding to specific promoters repressing CEBPA binding to its target gene promoters. [UniProt]

Calculated Mw

47 kDa

PTM

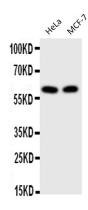
Phosphorylated by CDK2 and cyclin A-CDK2 in the S-phase. Phosphorylation at Ser-364 by CHEK2 stabilizes E2F1 upon DNA damage and regulates its effect on transcription and apoptosis.

Acetylation stimulates DNA-binding. Enhanced under stress conditions such as DNA damage and inhibited by retinoblastoma protein RB1. Regulated by KAP1/TRIM28 which recruits HDAC1 to E2F1 resulting in deacetylation. Acetylated by P/CAF/KAT2B. [UniProt]

Cellular Localization

Nucleus. [UniProt]

#### **Images**



#### ARG59547 anti-E2F1 antibody WB image

Western blot: 40  $\mu$ g of HeLa and MCF-7 whole cell lysates stained with ARG59547 anti-E2F1 antibody at 0.5  $\mu$ g/ml dilution.