

# Product datasheet

info@arigobio.com

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

Isotype IgG

Target Name E2F1

Species Human

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

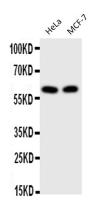
Phosphorylated by CDK2 and cyclin A-CDK2 in the S-phase. Phosphorylation at Ser-364 by CHEK2 stabilizes E2F1 upon DNA damage and regulates its effect on transcription and apoptosis.

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.