

## Product datasheet

### Anti-E2F1 antibody [KH95] ab4070

KO VALIDATED

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#### Overview

<b>Product name</b>	Anti-E2F1 antibody [KH95]
<b>Description</b>	Mouse monoclonal [KH95] to E2F1
<b>Host species</b>	Mouse
<b>Specificity</b>	Protein of 60 kDa.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant full length protein corresponding to Human E2F1.
<b>Positive control</b>	WB: HepG2, HEK-293, HeLa and U-2 OS cell lysates. IHC-P: Human tonsil tissue.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.3 Preservative: 0.05% Sodium azide Constituents: Ascites, 1% BSA
<b>Purity</b>	IgG fraction
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	KH95
<b>Isotype</b>	IgG2a

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab4070 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500. Predicted molecular weight: 47 kDa.
IHC-P		1/25 - 1/50. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

## Target

### 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. E2F-1 binds preferentially RB1 protein, in a cell-cycle dependent manner. It can mediate both cell proliferation and p53-dependent apoptosis.

### Sequence similarities

Belongs to the E2F/DP family.

### Post-translational modifications

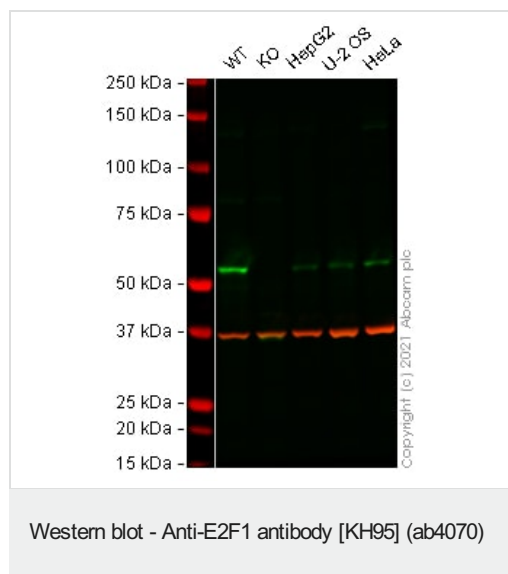
Phosphorylated by CDK2 and cyclin A-CDK2 in the S-phase.

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

### Cellular localization

Nucleus.

## Images



**All lanes :** Anti-E2F1 antibody [KH95] (ab4070) at 1/500 dilution

**Lane 1 :** Wild-type HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

**Lane 2 :** E2F1 knockout HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

**Lane 3 :** Hep G2 (Human liver hepatocellular carcinoma cell line) whole cell lysate

**Lane 4 :** U-2 OS (Human bone osteosarcoma epithelial cell line) whole cell lysate

**Lane 5 :** HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lysates/proteins at 20 µg per lane.

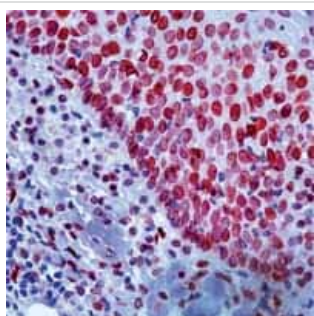
Performed under reducing conditions.

**Predicted band size:** 47 kDa

**Observed band size:** 55 kDa

**Lanes 1 - 5:** Merged signal (red and green). Green - ab4070 observed at 55 kDa. Red - loading control **ab181602** (Rabbit Anti-GAPDH antibody [EPR16891]) observed at 37 kDa.

ab4070 was shown to react with E2F1 in wild-type HEK-293 cells in Western blot with loss of signal observed in E2F1 knockout sample. Wild-type HEK-293 and E2F1 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween®) before incubation with ab4070 and **ab181602** (Rabbit Anti-GAPDH antibody [EPR16891]) overnight at 4°C at a 1 in 500 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed (**ab216772**) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed (**ab216777**) secondary antibodies at 1 in 20000 dilution for 1 h at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-E2F1 antibody [KH95] (ab4070)

ab4070 staining human tonsil by IHC-P.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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