

E2F1 (phospho S364) polyclonal antibody

Catalog # PAB10004

Size 100 ug

Applications

Western Blot (Transfected lysate)

Western blot using E2F1 (phospho S364) polyclonal antibody (Cat # PAB10004) shows detection of a band at ~47 kDa corresponding to phospho-E2F1 in induced cell lysates.

Panel A shows reactivity using a control antibody reactive to all forms of E2F (arrowheads).

Panel B shows specific reactivity against phosphorylated E2F-1 (arrowheads) using our Phospho-E2F1 S364 polyclonal antibody.

Lysates are as follows : CRE/E2F1 are CRE cells derived from mouse NIH/3T3 line transfected with human E2F1, NIH/3T3 used as a negative control, and MDA-MB-231 cells are a human breast cancer line.

As indicated each lysate was prepared from untreated cells and cells treated with 2 uM Doxorubicin used as a DNA damaging agent.

In addition the MDA-MB-231 cells were also treated with genistein, a mild Ddamaging agent.

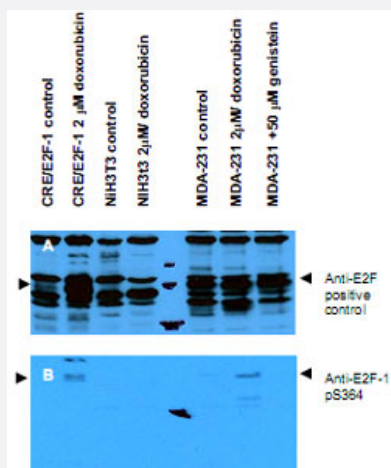
The figure shows the same membrane first probed with the E2F1 (phospho S364) polyclonal antibody (Cat # PAB10004) used at a 1 : 250 dilution, then stripped and re-probed with the pan E2F antibody used as a positive control. The positive control antibody clearly shows an E2F1 band in all human cell lines, but not mouse cells.

Treatment with doxorubicin increases the expression E2F1 as shown in Panel A.

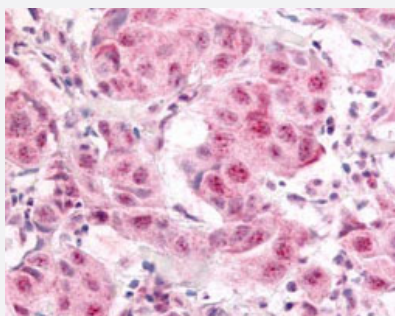
After film development, images were overlapped to confirm that specific anti-E2F1 pS364 staining shown treated human cells in Panel B specifically aligns with E2F1 staining shown in Panel A.

Blots can be processed with HRP conjugated Gt-a-Rabbit IgG MX10 for 45 min at room temperature for ECL detection.

Personal Communication, XiaoHe Yang, Univ. Oklahoma.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)



Immunohistochemistry of E2F1 (phospho S364) polyclonal antibody (Cat # PAB10004) was used at a 10 ug/mL to detect nuclear and occasion-ally cytoplasmic signal in a variety of tissues in-cluding 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 E2F1 pS364 staining of human breast carcinoma. Tissue was formalin-fixed and paraffin embedded.

Personal Communication, Tina Roush, Life Span Biosciences, Seattle, WA.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic phosphopeptide of E2F1.
Immunogen	Synthetic phosphopeptide corresponding to residues surrounding S364 of human E2F1.
Host	Rabbit
Reactivity	Chimpanzee, Human
Specificity	Reactivity occurs against human E2F-1 pS364 protein and This antibody is specific to the phosphorylated form of the protein. Reactivity with non-phosphorylated human E2F-1 is minimal by ELISA. This antibody does not cross-react with E2F-1 phosphorylated at other sites.
Form	Liquid
Quality Control Testing	Antibody Reactive Against Synthetic Peptide.
Recommend Usage	ELISA (1:20000-1:100000) Western Blot 1:250-1:2000 Immunohistochemistry (2-20 ug/mL) The optimal working dilution should be determined by the end user.
Storage Buffer	In 20 mM KH ₂ PO ₄ , 150 mM NaCl, pH 7.2 (0.01% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

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Personal Communication, Tina Roush, Life Span Biosciences, Seattle, WA.

- Enzyme-linked Immunoabsorbent Assay

Gene Info — E2F1

Entrez GeneID	1869
Protein Accession#	Q01094;NP_005216
Gene Name	E2F1
Gene Alias	E2F-1, RBAP1, RBBP3, RBP3
Gene Description	E2F transcription factor 1
Omim ID	189971

Gene Ontology

[Hyperlink](#)

Gene Summary

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]

Other Designations

OTTHUMP00000030661|retinoblastoma-associated protein 1

Publication Reference

- [Induction of human metallothionein 1G promoter by VEGF and heavy metals: differential involvement of E2F and metal transcription factors.](#)
Joshi B, Ordonez-Ercan D, Dasgupta P, Chellappan S.
Oncogene 2005 Mar; 24(13):2204.
- [Activation of p27Kip1 Expression by E2F1. A negative feedback mechanism.](#)
Wang C, Hou X, Mohapatra S, Ma Y, Cress WD, Pledger WJ, Chen J.
The Journal of Biological Chemistry 2005 Feb; 280(13):12339.
- [The central acidic domain of MDM2 is critical in inhibition of retinoblastoma-mediated suppression of E2F and cell growth.](#)
Sdek P, Ying H, Zheng H, Margulis A, Tang X, Tian K, Xiao ZX.
The Journal of Biological Chemistry 2004 Dec; 279(51):53317.

Pathway

- [Bladder cancer](#)
- [Cell cycle](#)
- [Chronic myeloid leukemia](#)
- [Glioma](#)

- [Melanoma](#)
- [Non-small cell lung cancer](#)
- [Pancreatic cancer](#)
- [Pathways in cancer](#)
- [Prostate cancer](#)
- [Small cell lung cancer](#)

Disease

- [Genetic Predisposition to Disease](#)
- [Neoplasms](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)