

Rabbit anti-Human, Mouse E2F1 Polyclonal Antibody | anti-E2F1 antibody

Phospho-E2F1 (Thr433) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321675	Rabbit	Human, Mouse	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

E2F1; Polyclonal Antibody; Phospho-E2F1 (Thr433) Antibody; DmelCG6376; Dmel_CG6376; drosE2F1; E(Sev-CycE)3A; E(var)3-93E; E2-promoter binding facto; E2F 1; E2F transcription factor 1; E2F-1; E2f-PA; E2f-PB; E2f-PC; E2f1 E2F transcription factor 1; E2F1_HUMAN; Evar(3)164; KIAA4009; I(3)07172; I(3)j3B1; I(3)j3C2; I(3)rM729; mKIAA4009; OTTHUMP00000030661; PBR3; PRB binding protein E2F 1; PRB-binding protein E2F-1; RBAP 1; RBAP-1; RBAP1; RBBP-3; RBBP3; RBP 3; RBP3; Retinoblastoma-associated protein 1; Retinoblastoma-binding protein 3; Transcription factor E2F1; anti-E2F1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-E2F1 (Thr433) antibody detects endogenous levels of E2F1 only when phosphorylated at Threonine 433
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	437
Applicable Applications for anti-E2F1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human E2F1 around the phosphorylation site of Threonine 433
Subcellular Location	Nucleus.
Predicted Cross Reactivity	Pig, Bovine, Horse, Rabbit, Chicken
Similarity	Pig (100%), Bovine (100%), Horse (100%), Rabbit (100%), Chicken (82%)
Conjugation	Unconjugated
Epitope	Phospho Thr433
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
Western blot analysis of Phospho-E2F1 (Thr433) expression in various lysates



IF (Immunofluorescence)
AAA321675 staining HeLa by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of E2F1 phosphorylation expression in Etoposide treated HeLa whole cell lysates, The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-E2F1 antibody

Description: 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.

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 (PubMed:20176812). Positively regulates transcription of RRP1B (PubMed:20040599).

Subunit Structure: Component of the DRTF1/E2F transcription factor complex. Forms heterodimers with DP family members. The E2F1 complex binds specifically hypophosphorylated retinoblastoma protein RB1. During the cell cycle, RB1 becomes phosphorylated in mid-to-late G1 phase, detaches from the DRTF1/E2F complex, rendering E2F transcriptionally active. Viral oncoproteins, notably E1A, T-antigen and HPV E7, are capable of sequestering RB1, thus releasing the active complex. Interacts with TRRAP, which probably mediates its interaction with histone acetyltransferase complexes, leading to transcription activation. Binds TOPBP1 and EAPP. Interacts with ARID3A. Interacts with TRIM28; the interaction inhibits E2F1 acetylation through recruiting HDAC1 and represses its transcriptional activity. Interaction with KAT2B; the interaction acetylates E2F1 enhancing its DNA-binding and transcriptional activity. Interacts with BIRC2/c-IAP1 (via BIR domains). The complex TFDP1:E2F1 interacts with CEBPA; the interaction prevents CEBPA binding to target genes promoters and represses its transcriptional activity (PubMed:20176812). Interacts with RRP1B (PubMed:20040599). Interacts with HCFC1 (PubMed:23629655). Interacts with KMT2E; the interaction is probably indirect and is mediated via HCFC1 (PubMed:23629655).

Post-translational Modifications: 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.

Similarity: Belongs to the E2F/DP family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	12669911
NCBI GeneID	1869
NCBI Accession #	NP_005216.1
NCBI GenBank Nucleotide #	NM_005225.2
UniProt Accession #	Q01094; Q13143; Q92768

Molecular Weight	Observed: 47 kDa Predicted: 47 kDa
NCBI Official Full Name	transcription factor E2F1
NCBI Official Synonym Full Names	E2F transcription factor 1
NCBI Official Symbol	E2F1
NCBI Official Synonym Symbols	RBP3; E2F-1; RBAP1; RBBP3
NCBI Protein Information	transcription factor E2F1
UniProt Protein Name	Transcription factor E2F1
UniProt Gene Name	E2F1
UniProt Synonym Gene Names	RBBP3; E2F-1; RBAP-1; RBBP-3

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
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