# E2F1 Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

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| **Product Name** | E2F1, Polyclonal Antibody |
| **Full Product Name** | E2F1 (Phospho-Thr433) Antibody |
| **Product Gene Name** | anti-E2F1 antibody |
| **Product Synonym Names** | E2F-1; PBR3; RBAP-1; RBBP-3 |
| **Clonality** | Polyclonal |
| **Host** | Rabbit |
| **Species Reactivity** | Human, Mouse, Rat |
| **Form/Format** | Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. |
| **Purity/Purification** | Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatogramphy usi |
| **Specificity** | The antibody detects endogenous level of E2F1 only when phosphorylated at Threonine 433. |
| **Preparation and Storage** | Store at 4 degree C short term. Aliquot and store at -20 degree C long term. Avoid freeze/thaw cycles. |
| **Molecular Weight** | 46,920 Da |
| **Chromosome Location** | Chromosome: 20; NC_000020.10 (32263292..32274210, complement). Location: 20q11.2 |
| **OMIM** | 189971 |
| **3D Structure** | ModBase 3D Structure for Q01094 |
| **Immunogen** | Peptide sequence around phosphorylation site of Threonine 433<br>(D-L-T (p)-P-L) derived from Human E2F1. |
| **Product Categories/Family for anti-E2F1 antibody** | Primary Antibody |
| **ISO Certification** | Manufactured in an ISO 9001:2015 Certified Laboratory. |
| **Applications Tested/Suitable for anti-E2F1 antibody** | Western Blot (WB) |
| **Application Notes for anti-E2F1 antibody** | WB: 1:500~1:1000 |
| **Related Product Information for anti-E2F1 antibody** | 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 |
| **Other Notes** | Small volumes of anti-E2F1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for E2F1 purchase** | MBS8585272 is an antibody targeting E2F1. Also known as E2F1 (Phospho-Thr433) Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for E2F1. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 12669911 |
| **NCBI GeneID** | 1869 |
| **NCBI Accession #** | NP_005216.1 |
| **UniProt Primary Accession #** | Q01094 |
| **UniProt Secondary Accession #** | Q13143; Q92768 |
| **UniProt Related Accession #** | Q01094 |
| **GenBank Nucleotide #** | NM_005225.2 |
| **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 |
| **UniProt Protein Name** | Transcription factor E2F1 |
| **UniProt Synonym Protein Names** | PBR3; Retinoblastoma-associated protein 1; RBAP-1; Retinoblastoma-binding protein 3; RBBP-3; pRB-binding protein E2F-1 |
| **Protein Family** | Transcription factor |
| **UniProt Gene Name** | E2F1 |
| **UniProt Synonym Gene Names** | RBBP3; E2F-1; RBAP-1; RBBP-3 |
| **UniProt Entry Name** | E2F1_HUMAN |
| **NCBI Protein Information** | transcription factor E2F1; PBR3; RBAP-1; RBBP-3; PRB-binding protein E2F-1; retinoblastoma-binding protein 3; retinoblastoma-associated protein 1 |
| **NCBI Summary for E2F1** | 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] |

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| **UniProt Comments for E2F1** | E2F1: a member of the E2F/DP 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. Binds DNA cooperatively with Dp transcription factors in the promoter region of a number of genes whose products are involved in cell cycle regulation or in DNA replication.The Dp-1/E2F complex functions in the control of cell-cycle progression from G1 to S phase. The E2F-1 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. Phosphorylated by CDK2 and cyclin A-CDK2 in the S-phase. It can mediate both cell proliferation and p53-dependent apoptosis.<br><br>Protein type: DNA-binding; Transcription factor<br><br>Chromosomal Location of Human Ortholog: 20q11.2<br><br>Cellular Component: nucleoplasm; Rb-E2F complex; cytoplasm; nucleus<br><br>Molecular Function: protein binding; DNA binding; sequence-specific DNA binding; transcription factor binding; transcription factor activity<br><br>Biological Process: Notch signaling pathway; transcription, DNA-dependent; apoptosis; positive regulation of transcription, DNA-dependent; mRNA stabilization; negative regulation of transcription from RNA polymerase II promoter; anoikis; positive regulation of fibroblast proliferation; DNA damage response, signal transduction resulting in induction of apoptosis; regulation of transcription, DNA-dependent; DNA damage checkpoint; forebrain development; spermatogenesis; positive regulation of transcription from RNA polymerase II promoter; mitotic cell cycle; negative regulation of transcription, DNA-dependent; G1/S transition of mitotic cell cycle |
| **Research Articles on E2F1** | **1.** Data gathered from cell lines, tumorigenicity studies, and primary hepatocellular carcinoma samples demonstrate a negative role of HIF-2alpha in tumors, which is mediated by the TFDP3/E2F1 pathway. |
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