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Phospho-E2F1(H357) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3698a

Product Information

Application	DB, E
Primary Accession	Q01094
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB07916
Calculated MW	46920

Additional Information

Gene ID	1869
Other Names	Transcription factor E2F1, E2F-1, PBR3, Retinoblastoma-associated protein 1, RBAP-1, Retinoblastoma-binding protein 3, RBBP-3, pRB-binding protein E2F-1, E2F1, RBBP3
Target/Specificity	This E2F1 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding H357 of human E2F1.
Dilution	DB~~1:500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Phospho-E2F1(H357) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	E2F1 {ECO:0000303|PubMed:8964493, ECO:0000312|HGNC:HGNC:3113}
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 (PubMed:10675335, PubMed:12717439,

PubMed:17050006, PubMed:17704056, PubMed:18625225, PubMed:28992046). The DRTF1/E2F complex functions in the control of cell-cycle progression from G1 to S phase (PubMed:10675335, PubMed:12717439, PubMed:17704056). E2F1 binds preferentially RB1 in a cell-cycle dependent manner (PubMed:10675335, PubMed:12717439, PubMed:17704056). It can mediate both cell proliferation and TP53/p53-dependent apoptosis (PubMed:8170954). Blocks adipocyte differentiation by binding to specific promoters repressing CEBPA binding to its target gene promoters (PubMed:20176812). Directly activates transcription of PEG10 (PubMed:17050006, PubMed:18625225, PubMed:28992046). Positively regulates transcription of RRP1B (PubMed:20040599).

Cellular Location Nucleus

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.

References

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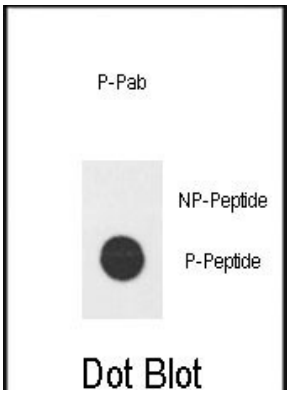
Alla, V., et al. J. Natl. Cancer Inst. 102(2):127-133(2010)
Zhou, C., et al. Mol. Endocrinol. 23(12):2000-2012(2009)
Yang, X., et al. Genes Dev. 23(20):2388-2393(2009)
Olsen, J.V., et al. Cell 127(3):635-648(2006)

Images



Dot blot analysis of Phospho-hE2F1-H357 Pab (Cat. #AP3698a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.