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E2F1 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1734a

Product Information

Application	WB, IHC, FC, E
Primary Accession	Q01094
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Clone Names	8G9
Isotype	IgG1
Calculated MW	46920
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. 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.
Immunogen	Purified recombinant fragment of human E2F1 (AA: 69-223) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

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
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions	E2F1 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

References

1.Cancer Res. 2010 Dec 1;70(23):9711-20. 2.Mol Cancer Ther. 2010 May;9(5):1265-73.

Images

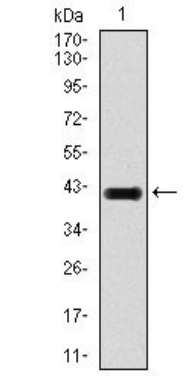


Figure 1: Western blot analysis using E2F1 mAb against human E2F1 recombinant protein. (Expected MW is 42.7 kDa)

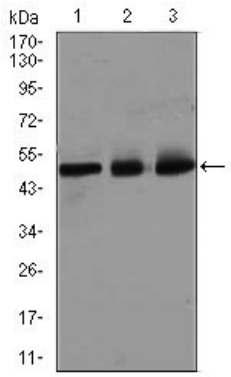


Figure 2: Western blot analysis using E2F1 mouse mAb against HeLa (1), SK-N-SH (2), and NIH3T3 (3) cell lysate.

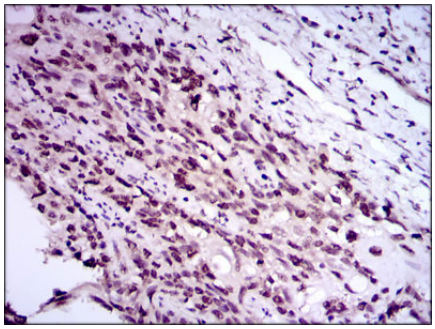


Figure 3: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using E2F1 mouse mAb with DAB staining.

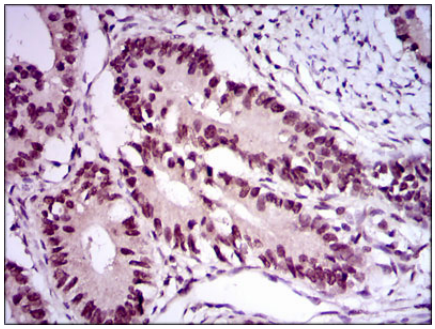


Figure 4: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using E2F1 mouse mAb with DAB staining.

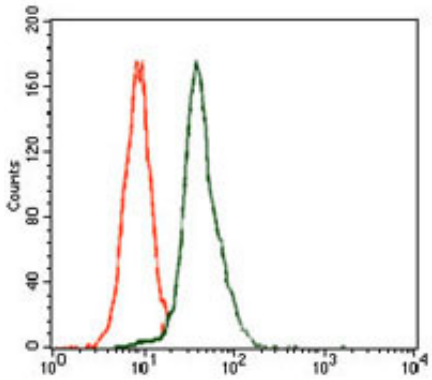


Figure 5: Flow cytometric analysis of HeLa cells using E2F1 mouse mAb (green) and negative control (red).

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