10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Phospho-E2F1(S337) Antibody Blocking peptide
Synthetic peptide
Catalog # BP3091a

Specification

Phospho-E2F1(S337) Antibody Blocking peptide - Product Information

Primary Accession Q01094

Phospho-E2F1(S337) Antibody Blocking peptide - 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
The synthetic peptide sequence used to generate the antibody AP3091a was selected from the region of human Phospho-E2F1-S337. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Phospho-E2F1(S337) Antibody Blocking peptide - 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:17704056, PubMed:17050006, 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

Phospho-E2F1(S337) Antibody Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

Phospho-E2F1(S337) Antibody Blocking peptide - Images

Phospho-E2F1(S337) Antibody Blocking peptide - Background

E2F1 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.

Phospho-E2F1(S337) Antibody Blocking peptide - References

O'Donnell, K.A., et al., Nature 435(7043):839-843 (2005).Wang, C., et al., J. Biol. Chem. 280(13):12339-12343 (2005).Joshi, B., et al., Oncogene 24(13):2204-2217 (2005).Saberwal, G., et al., Int. J. Hematol. 80(2):146-154 (2004).Chaussepied, M., et al., Mol. Cell 16(5):831-837 (2004).