

ARG62474
anti-E2F1 antibody [KH20]

Package: 100 µl

Store at: -20°C

Summary

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| Product Description | Mouse Monoclonal antibody [KH20] recognizes E2F1 |
| Tested Reactivity | Hu, Ms, Rat, Xenopus laevis |
| Tested Application | GSA, IHC, IP, WB |
| Specificity | The epitope recognized by the antibody resides in the N-terminal region of human E2F1 (amino acids 1-89). |
| Host | Mouse |
| Clonality | Monoclonal |
| Clone | KH20 |
| Isotype | IgG2a |
| Target Name | E2F1 |
| Species | Human |
| Immunogen | Recombinant human E2F1 |
| Conjugation | Un-conjugated |
| Alternate Names | RBAP1; Retinoblastoma-associated protein 1; Retinoblastoma-binding protein 3; RBBP3; pRB-binding protein E2F-1; RBBP-3; E2F-1; Transcription factor E2F1; RBP3; PBR3; RBAP-1 |

Application Instructions

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| Application Note | WB: 1-2 ug/ml * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |
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Properties

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| Form | Liquid |
| Buffer | 0.01 M PBS (pH 7.4), 1% BSA and 15 mM Sodium azide |
| Preservative | 15 mM Sodium azide |
| Stabilizer | 1% BSA |
| Concentration | 0.2 mg/ml |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |
| Note | For laboratory research only, not for drug, diagnostic or other use. |

Bioinformation

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| Gene Symbol | E2F1 |
| Gene Full Name | E2F transcription factor 1 |
| 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 evolutionarily 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] |
| 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). [UniProt] |
| Research Area | Cancer antibody; Gene Regulation antibody |
| Calculated Mw | 47 kDa |
| PTM | 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. |