

## Recombinant Human E2F1, His-tagged

**Cat. No.** E2F1-1031H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>Product Overview</b> | Recombinant Human E2F1, fused with His-tag, was expressed in Baculovirus –insect cell.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Source</b>           | Insect Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>      | <p>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.</p> |
| <b>Form</b>             | The protein is in 20mM Tris-HCl pH7.9, 100mM NaCl, 0.2mM EDTA, 1mM DTT and 20% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Molecular Mass</b>   | 48.6 kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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| <b>AA Sequence</b>      | ALAGAPAGGP CAPALEALLG AGALRLLDSS QIVIISAAQD ASAPPAPTGP<br>AAPAAGPCDPDLLLFATPQA PRPTPSAPRP ALGRPPVKRR LDLETDHQYL<br>AESSGPARGR GRHPGKGVKSPGEKSRYETS LNLTTKRFL ELLSHSADGVV<br>DLNWAAEVLK VQKRRIYDIT NVLEGIQLIAKKSKNHIQWL GSHTTVGVGG<br>RLEGLTQDLR QLQESEQQLD HLMNICTTQL RLLSEDTDSQRLAYVTCQDL<br>RSIADPAEQM VMVIKAPPET QLQAVDSSSEN FQISLKSQKG<br>PIDVFLCPEETVGGISPGKT PSQEVTSSEE NRATDSATIV SPPPSSPPSS<br>LTTDPSQSLL SLEQEPLLSRMGSLRAPVDE DRLSPLVAAD SLLEHVREDF<br>SGLLPEEFIS LSPPEALDY HFGLEEGERDLDFDCDFGD LTPLDF |
| <b>Purity</b>           | 90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Unit Definition</b>  | 1 unit equals 1 nanogram of purified protein. 1 unit is sufficient for a gel mobility shift assay in a 20 µreaction; 100 units are sufficient for protein-protein interaction assays.                                                                                                                                                                                                                                                                                                                           |
| <b>Applications</b>     | Recombinant E2F-1 protein can be used 1) for in vitro function studies including transcription, DNA binding and DNA bending assays; 2) for protein-protein interaction assay; and 3) for cell growth and proliferation assays.                                                                                                                                                                                                                                                                                  |
| <b>Storage</b>          | Stored at -70°C before use. Avoid repeated freeze thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Gene Name</b>        | E2F1 E2F transcription factor 1 [ Homo sapiens (human) ]                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Official Symbol</b>  | E2F1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Synonyms</b>         | E2F1; E2F transcription factor 1; RBP3; E2F-1; RBAP1; RBBP3 retinoblastoma-associated protein 1; Transcription factor E2F1; Retinoblastoma-binding protein 3; RBBP-3; PRB-binding protein E2F-1                                                                                                                                                                                                                                                                                                                 |

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| <b>Gene ID</b>             | 1869                                                                                                                                                                                              |
| <b>mRNA Refseq</b>         | NM_005225                                                                                                                                                                                         |
| <b>Protein Refseq</b>      | NP_005216                                                                                                                                                                                         |
| <b>MIM</b>                 | 189971                                                                                                                                                                                            |
| <b>UniProt ID</b>          | Q01094                                                                                                                                                                                            |
| <b>Chromosome Location</b> | 20q11.2                                                                                                                                                                                           |
| <b>Pathway</b>             | Activation of BH3-only proteins; Activation of NOXA and translocation to mitochondria; Assembly of the pre-replicative complex; Association of licensing factors with the pre-replicative complex |
| <b>Function</b>            | core promoter binding; DNA binding; sequence-specific DNA binding; sequence-specific DNA binding transcription factor activity                                                                    |

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