

## Product datasheet for **SC303431**

### E2F2 (NM\_004091) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	E2F2 (NM_004091) Human Untagged Clone
Tag:	Tag Free
Symbol:	E2F2
Synonyms:	E2F-2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM\_004091 edited  
 GCCTTACTCGCTATGCTGCAAGGGCCCCGGCCTTGGCTTCGGCCGCTGGGCAGACCCCC  
 AAGGTGGTGCCCGCGATGAGCCCCACAGAGCTGTGGCCATCCGGCCTCAGCAGCCCCAG  
 CTCTGCCAGCTACTGCTACCTACTACACACCGCTGTACCCGCAGACGGCGCCTCCCGCA  
 GCGGCGCCAGGCACCTGCCTCGACGCCACTCCCCACGGACCCGAGGGCCAAGTTGTGCGA  
 TGCTTGCCTGCGGCGAGCCGGCTGCCGGCCAAAAGGAAGCTGGATCTGGAGGGGATTGGGAGG  
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 AGCCCCAAAACCCCCAAATCCCCCGGGGAGAAGACTCGGTATGACACTTCGCTGGGGCTG  
 CTCACCAAGAAGTTCATTTACCTCCTGAGCGAGTCAGAGGATGGGGTCTGGACCTGAAC  
 TGGGCCGCTGAGGTGCTGGACGTGCAGAAGCGGGCATCTATGACATACCAACGTGCTG  
 GAAGGCATCCAGCTCATCCGCAAGAAGGCCAAGAACAACATCCAGTGGGTAGGCAGGGGA  
 ATGTTTGAAGACCCACCAGACCTGGGAAGCAGCAACAGCTGGGGCAGGAGCTGAAGGAG  
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 CACCTGACTGAGGACAAGGCCAACAAGAGGCTGGCCTATGTGACTTACCAGGATATCCGT  
 GCTGTTGGCAACTTTAAGGAGCAGACAGTATTGCCGTCAAGGCCCTCCGCAGACGAGA  
 CTGGAAGTGCCCGACAGGACTGAGGACAACCTGCAGATATATCTCAAGAGCACCAAGGG  
 CCCATCGAAGTCTACCTGTGCCAGAGGAGGTGCAGGAGCCGGACAGTCTTCCGAGGAG  
 CCTCTCCCCTCTACCTCCACCCTCTGCCAGCCCTGACTCTGCCAGCCAGCAGCAGC  
 ACCGACCTAGCATCATGGAGCCACAGCATCCTCAGTGCCAGCACCCAGGCCAACCCCC  
 CAGCAGGCCCCACCGCCTCCATCCCTGGTCCCCTTGGAGGCTACTGACAGCCTGCTGGAG  
 CTGCCGCACCCACTCCTGCAGCAGACTGAGGACCAGTTCCTGTCCCCGACCTGGCGTGC  
 AGCTCCCCCTGATCAGTCTCTCCCATCCTTGGACCAGGACGACTACCTGTGGGGCTTG  
 GAGGCGGGTGAGGGCATCAGCGATCTCTTCGACTCCTACGACCTTGGGGACCTGTTGATT  
 AATTGAGTGGCCCCGCTGCCCCAGCAGCCTGCCCCGACTCTACCTCCTCACAGACAG  
 GCTGACAGCCCCCTGCTGCACAGGGACATTGGACACTAGGTGCTGCCCTCAGGCATG  
 GGGTCTCCTCGCCTTTCCTGCCAGCCGCGAGAAGCTGTGTGGGAGATATGAATGGTA  
 CGGGTGAGGAGTGATAAGGGGTGGTCTCACCTTCTAATGGAAGCTGGCCTAGGGAG



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GCCCATCCAGTCTTCTGACTTCTGACCTCTCACAAGAAGGCTGCAGGTGAGGTGGCCAAG  
 TCCAGGAAAGGCCCTGCTACCTCCTTTTGAGGGTAATTAGGACCTCGACGTACCAAG  
 AAGCACATAATGCCTTTGTATTTATTTACAGTTGAGTTGTTTGTTCCTCCCTGAGTT  
 TTAGCAGGGAGGTTGTTCTAGTTTTAGTGAGACCTCTGCAGACAGGCCATCACTGTCC  
 ATGTTCCAGGGCAGGCTGGGTTTCCAAGGGAGGGGCCAGGCTACATCCTTGGTTTCCC  
 CACTGTGGTGGGGCTGGACTCTGAGGGCTGCCAGTCTGCCAGAATGCTAATTGCAC  
 TTAGGCTCATGTTCTAGTAAACGGCAGCTGTGGGCCCTTTGCCTCTCCCTGTTCT  
 TGGCTCACATCTCCAGCTGAGCTGCCGTCTTGGCTTCTGGTCGCTCTGTCCAGAG  
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 ACCTGCTCAGGAGACCCCTTTCTGAGGAAGTCCTTACCTCTCCCTTGAGATGTAAAAA  
 TGGTCCAGCAGAGACAAGCTCCCGTGAAAACAGACAGGAGCATGGGGCAGCTGTCATG  
 GCTGTGGCGGGCACTTTCTCAGAGTTTCTGCCTTGCCTGGTCCAGGAGCCATTTTGC  
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 AACTGCCAAAAGCATCCCTCTGCCCCCATGTGGCACTGGCATCATTCTCTGCTCCCT  
 GGGAGGAATTTTTACCATGTTATTGAAGGGGATGGTTCATTAAGGACTCCACCCCTCA  
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 CTCTTCTCCCCACCCACCCTGGGATGTGGGTGCTCTGGGCTGAACCAAGGCTATGACTT  
 CTGGAGAGAGGCTCAGGGGTTGGTCTGAGAGGCTGCCATCCACCCCTCAGGGAGCTAGG  
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 TTGTGCCTCATATTTGCTCAAATTCCTGGGCCCAAGTTAGCCCTCCAGGAGTGG  
 TCAGCGGGTACAGCTGCCCCACTCTATAAGCAGGGTAATTGTGTACCCTTTCAGAA  
 ATGCTTTTGGTCTCCTACCCAAATACTCACAAGGGTCTTATCAGACGCCCGTCTTAAAGT  
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 CTCACCTGGGCTGCCATTTAGCCATGTGCCATCTCTGAAGTCAGAGGTGTTTGACTCCCA  
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 CAGGACCCATTGGGAATGAGTTTAACTGAAGTCTGGAATGTAAGCTCATGCCCTAGAG  
 GCCTCTCCATATGGCTGGTCAAGGGAGCTGCCTTCAAGGCTTGTGCCCGTGTGCTCAGCA  
 GCTGCCTCTGTCCCTCTACTGTCCCTTTCACACCTTGCTGGCCAAGGGGCTAGACCT  
 CCCAGGCTAAGCCTCAGATTCACTGCAGGACACAAGCTCATGCCCCGCTTGGCAGTGA  
 CACTTGAAGCCTCCCGACTTCCACAGAGTGCTTCCAGGACATTTTGAAGTGGTATTTTCT  
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 TGGAGTGCAGTGGCCTGATCTCGGCTCACTGCAACCTCTGCCTCCAGGTTCAAGCGATT  
 CTTCTGCCTCAGCCTCCAGAGTAGCTGGGACTATAGACATGCACCACCACGCCCGGCTAA  
 TTTTGTATTTTTGGTTCGAGACGGGTTTTGCCATGTTAGTCAGGCTGGTCTTGAACCTCT  
 GACCTCAAGTGATCCACCACCTCGGCTCCCAAAGTGTGAGATGACAGGCACGAGCCAC  
 CAGGCCAGCCTGAGTGGTATTTTCTTTAGGGACCAGGTAGACTTTAAAACGAGGGTAAG  
 AGAAAAGCCAGTGTCTTTCTGAGGTAATAATTTCTGCCAGGAACTTCCAGCCCCACC  
 AGCAGCCACCCTAAAAAAATCACTCGTGTCCCCAGGGACTTCTAAAGCTTGGGGCTCCA  
 GGAAATCATCCAGTAGAGTTGGAGATTCAGAGATTTCTTGAAGCCAGGGACATGCTCCTA  
 ACTCCTTTCCATTAAAGGTGTTAGAATAGACCAGAGGGTGTCCCTTTTCCACAGTAATG  
 GGATCGGCTGGTGTGCTTCCAGGGAGGAAGAGGGAGGTGGTCAAGCTTGAAAAACGGCT  
 TTAGGATGGTTCTGACTTTGTTCTCCCTCCCAAGTGTCTCAACCTCCATTCTGCAGTG  
 TTCAGAGTTTTAGGGAAAGGGTTTTGGGTGCCCCAGCATCCAGGTGTTGTGTGGCTTAGCG  
 CATGTGAAGTGAAAACCTTCTGGGGTGTTTGGAAGCAGCTTTCTGGTCTTGTGATTGT  
 ATCCTGAGGTCCCAGAACCCTATTCTCCACAGGATCCTCAGTGACCATGGTGGCCACA  
 CGCCTGGCCAGCCTGCTGGCTCCTGGGTGAGCTGAAGAACCTTGCTGTGGCACTTTTCCG  
 AGGGTGAAGTGAACCGAGAGAACATGGTCCCGTGTGGGACTCATGCGGGTCAATTTCC

TGCCGGCCTGGTTTCGCCTGGTCGTGTCTTTATGAGCACCATGTAAGCCTCCTTGTATTG  
 AGATAATTGGGCATTAACATTAACACTGCAGCTCTGGGAAAAAAAAAAAAAAAAAAAAA  
 AA

<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_004091
<b>Insert Size:</b>	4800 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	The ORF of this clone has been fully sequenced and the protein associated with this clone was found to be identical to protein encoded by NM_004091.2.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_004091.2</a></u> , <u><a href="#">NP_004082.1</a></u>
<b>RefSeq Size:</b>	5273 bp
<b>RefSeq ORF:</b>	1314 bp
<b>Locus ID:</b>	1870
<b>UniProt ID:</b>	<u><a href="#">Q14209</a></u>
<b>Cytogenetics:</b>	1p36.12
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Protein Pathways:</b>	Bladder cancer, Cell cycle, Chronic myeloid leukemia, Glioma, Melanoma, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Prostate cancer, Small cell lung cancer

**Gene Summary:**

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, E2F1 and E2F3, have an additional cyclin binding domain. This protein binds specifically to retinoblastoma protein pRB in a cell-cycle dependent manner, and it exhibits overall 46% amino acid identity to E2F1. [provided by RefSeq, Jul 2008]