

## Product datasheet for **RC208247**

### **E2F1 (NM\_005225) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	E2F1 (NM_005225) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	E2F1
Synonyms:	E2F-1; RBAP1; RBBP3; RBP3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC208247 representing NM\_005225  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCTTGGCCGGGCCCTGCGGGCGGCCATGCGCGCGCGCTGGAGGCCCTGCTCGGGCCGGCG  
 CGCTGCGGCTGCTCGACTCCTCGCAGATCGTCATCATCTCCGCCGCGCAGGACGCCAGCGCCCGCGGC  
 TCCACCGGCCCGCGCGGCCCGCGGCCCTGCGACCTGACCTGTGCTCTTCGCCACACCGCAG  
 GCGCCCGGCCACACCCAGTGCGCCGCGGCCGCGCTCGGCCGCCCGCGGTGAAGCGGAGGCTGGACC  
 TGGAAACTGACCATCAGTACCTGGCCGAGAGCAGTGGGCCAGCTCGGGCAGAGGCCCATCCAGGAAA  
 AGGTGTGAAATCCCCGGGGGAGAAGTACGCTATGAGACCTCACTGAATCTGACCACCAAGCGTTCCTG  
 GAGCTGCTGAGCCACTCGGCTGACGGTGTGTCGACCTGAACTGGGCTGCCGAGGTGCTGAAGGTGAGA  
 AGCGGCGCATCTATGACATCACCAACGCTCTTGAGGGCATCCAGCTCATTGCCAAGAAGTCCAAGAACA  
 CATCCAGTGGCTGGCAGCCACACCACAGTGGGCGTCCGCGGACGGCTTGAGGGTTGACCCAGGACCTC  
 CGACAGCTGCAGGAGAGCGAGCAGCAGCTGGACCACCTGATGAATATCTGTACTACGCAGCTGCGCCTGC  
 TCTCCGAGGACACTGACAGCCAGCGCTGGCCTACGTGACGTGTGACGACCTTCGTAGCATTGCAGACCC  
 TGCAGAGCAGATGGTTATGGTGATCAAAGCCCCTCCTGAGACCCAGCTCCAAGCCGTGGACTCTTCGGAG  
 AACTTTCAGATCTCCCTAAGAGCAAACAAGGCCCGATCGATGTTTTCTGTGCCCTGAGGAGACCGTAG  
 GTGGGATCAGCCCTGGGAAGACCCATCCCAGGAGGTCACTTCTGAGGAGGAGAACAGGGCCACTGACTC  
 TGCCACCATAGTGCACCACCACCATCATCTCCCCCTCATCCCTACCACAGATCCCAGCCAGTCTCTA  
 CTCAGCCTGGAGCAAGAACCCTGTTGTCCCGATGGGCAGCCTCGGGCTCCCGTGGACGAGGACCGCC  
 TGTCCCCGCTGGTGGCGCCGACTCGCTCCTGGAGCATGTGCGGGAGGACTTCTCCGGCCTCCTCCCTGA  
 GGAGTTCATCAGCCTTTCACCCACCCACGAGGCCCTCGACTACCACTTCGCCTCGAGGAGGGCGAGGGC  
 ATCAGAGACCTCTTCGACTGTGACTTTGGGGACCTCACCCCTGGATTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC208247 representing NM\_005225  
 Red=Cloning site Green=Tags(s)

MALAGAPAGGPCAPALEALLGAGALRLLDSSQIVIIISAAQDASAPPAPTGPAAPAAGPCDPDLLLFATPQ  
 APRPTPSAPRPALGRPPVKRRLDLETDHQYLAESSGPARGRGRHPGKGVKSPGEKSRYETSLNLTTRKFL  
 ELLSHSADGVVDLNWAAEVLKVQKRRIYDITNVLEGIQLIAKSKNHIQWLGSHTTVGVGGRLLEGLTQDL  
 RQLQESEQQLDHLMNICTTQLRLLSEDTDSQRLAYVTCQDLRSIADPAEQMVMVIKAPPETQLQAVDSSE  
 NFQISLQSKQGPIDVFLCPEETVGGISPGKTPSQEVTSEENRATDSATIVSPPSSPPSSLTTDPSQSL  
 LSLEQEPLL SRMGSLRAPVDEDRLSPLVAADSLLEHVREDFSGLLPEEFISLSPHEALDYHFGLEEGEG  
 IRDLFDCDFGDLTPLDF

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg2819\\_e09.zip](https://cdn.origene.com/chromatograms/mg2819_e09.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_005225

**ORF Size:** 1311 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

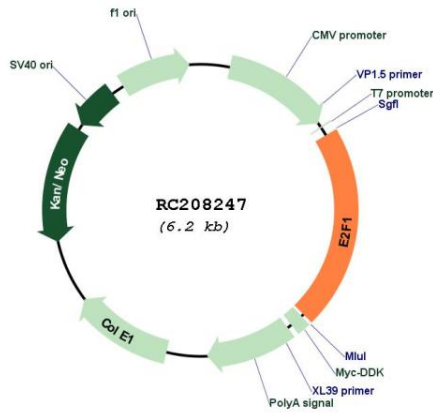
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** 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).

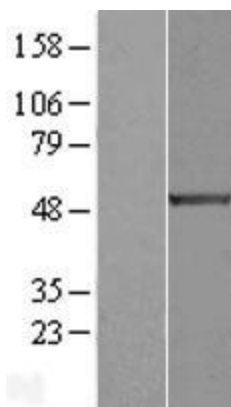
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
  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.

<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_005225.3</a>
<b>RefSeq Size:</b>	2486 bp
<b>RefSeq ORF:</b>	1314 bp
<b>Locus ID:</b>	1869
<b>UniProt ID:</b>	<a href="#">Q01094</a>
<b>Cytogenetics:</b>	20q11.22
<b>Domains:</b>	E2F_TDP
<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
<b>MW:</b>	46.7 kDa
<b>Gene Summary:</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. [provided by RefSeq, Jul 2008]</p>

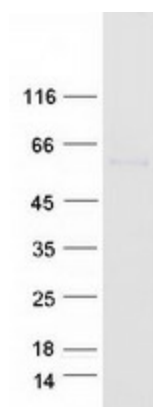
Product images:



Circular map for RC208247



Western blot validation of overexpression lysate (Cat# [LY417432]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208247 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified E2F1 protein (Cat# [TP308247]). The protein was produced from HEK293T cells transfected with E2F1 cDNA clone (Cat# RC208247) using MegaTran 2.0 (Cat# [TT210002]).