

Product datasheet for RC207699

E2F4 (NM_001950) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: E2F4 (NM 001950) Human Tagged ORF Clone

Tag: Myc-DDK

Symbol: E2F4

Synonyms: E2F-4

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)ORF Nucleotide>RC207699 ORF sequence

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGGCGGAGGCCGGCCACAGGCGCCCCCCGGGCACTCCAAGCCGGCACGAAAAGAGCCTGGGAC TGCTCACCACCAAGTTCGTGTCCCTTCTGCAGGAGGCCAAGGACGGCGTGCTTGACCTCAAGCTGGCAGC TGACACCCTAGCTGTACGCCAGAAGCGGCGGATTTACGACATTACCAATGTTTTGGAAGGTATCGGGCTA ATCGAGAAAAAGTCCAAGAACAGCATCCAGTGGAAGGGTGTGGGGGCCTGGCTGCAATACCCGGGAGATTG CTGACAAACTGATTGAGCTCAAGGCAGAGATCGAGGAGCTGCAGCAGCGGGAGCAAGAACTAGACCAGCA CAAGGTGTGGGTGCAGCAGAGCATCCGGAACGTCACAGAGGACGTGCAGAACAGCTGTTTGGCCTACGTC ACTCATGAGGACATCTGCAGATGCTTTGCTGGAGATACCCTCTTGGCCATCCGGGCCCCATCAGGCACCA GCCTGGAGGTGCCCATCCCAGAGGGTCTCAATGGGCAGAAGAAGTACCAGATTCACCTGAAGAGTGTGAG TGGTCCCATTGAGGTTCTGCTGGTGAACAAGGAGGCATGGAGCTCACCCCCTGTGGCTGTGCCTGTGCCA CCACCTGAAGATTTGCTCCAGAGCCCATCTGCTGTTTCTACACCTCCACCTCTGCCCAAGCCTGCCCTAG CCCAGTCCCAGGAAGCCTCACGTCCAAATAGTCCTCAGCTCACTCCCACTGCTGTCCCTGGCAGTGCAGA AGTGGTGAGCTCAGTTCACTCCCACTGGGCCCAACAACACTGGACACCCGGCCACTGCAGTCTTCTGCCC TGCTGGACAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAACAGTAACAGCAGCAGTTCGTC CGGACCCAACCCTTCTACCTCCTTTGAGCCCATCAAGGCAGACCCCACAGGTGTTTTTGGAACTCCCCAAA GAGCTGTCAGAAATCTTTGATCCCACACGAGAGTGCATGAGCTCGGAGCTGCTGGAGGAGTTGATGTCCT CAGAAGTGTTTGCCCCTCTGCTTCGTCTTTCTCCACCCCCGGGAGACCACGATTATATCTACAACCTGGA CGAGAGTGAAGGTGTCTGTGACCTCTTTGATGTGCCTGTTCTCAACCTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC207699 protein sequence

Red=Cloning site Green=Tags(s)

MAEAGPQAPPPPGTPSRHEKSLGLLTTKFVSLLQEAKDGVLDLKLAADTLAVRQKRRIYDITNVLEGIGL IEKKSKNSIQWKGVGPGCNTREIADKLIELKAEIEELQQREQELDQHKVWVQQSIRNVTEDVQNSCLAYV THEDICRCFAGDTLLAIRAPSGTSLEVPIPEGLNGQKKYQIHLKSVSGPIEVLLVNKEAWSSPPVAVPVP PPEDLLQSPSAVSTPPPLPKPALAQSQEASRPNSPQLTPTAVPGSAEVQGMAGPAAEITVSGGPGTDSKD SGELSSLPLGPTTLDTRPLQSSALLDSSSSSSSSSSSSSSSSSSSSSSSSSPNSTSFEPIKADPTGVLELPK ELSEIFDPTRECMSSELLEELMSSEVFAPLLRLSPPPGDHDYIYNLDESEGVCDLFDVPVLNL

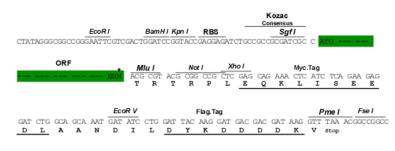
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6177 e01.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF

ACCN: NM_001950

ORF Size: 1239 bp

OTI Disclaimer: 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with

0.22um filter is required.

RefSeq: <u>NM 001950.4</u>

 RefSeq Size:
 2100 bp

 RefSeq ORF:
 1242 bp

 Locus ID:
 1874

 UniProt ID:
 Q16254

 Cytogenetics:
 16q22.1

 Domains:
 E2F TDP

Protein Families: Druggable Genome, Transcription Factors
Protein Pathways: Cell cycle, TGF-beta signaling pathway

MW: 44 kDa

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

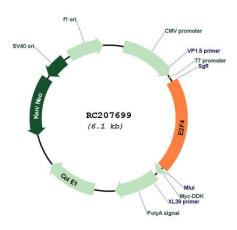
family. These domains include a DNA binding domain, a dimerization domain which

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 binds to all three of the tumor suppressor proteins pRB, p107 and p130, but with higher affinity to the last two. It plays an important role in the suppression of proliferation-associated genes, and its gene mutation and increased expression may be associated with human cancer.

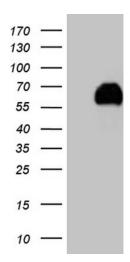
[provided by RefSeq, Jul 2008]



Product images:

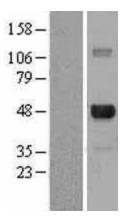


Circular map for RC207699



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY E2F4 (Cat# RC207699, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-E2F4 (Cat# [TA811691])(1:500). Positive lysates [LY400717] (100ug) and [LC400717] (20ug) can be purchased separately from OriGene.





Western blot validation of overexpression lysate (Cat# [LY400717]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207699 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).