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Product datasheet for RR211801

E2f7 (NM_001108092) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	E2f7 (NM_001108092) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	E2f7
Synonyms:	E2F-7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RR211801 representing NM_001108092
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGGTAAATTGTTTAACACTAAAAGACTTGATCAGCCCCAGGCAGACCAGACTAGATTTTGCCGTTG
AAGATGCAGAGACCGCACAAAAGGAAAATATATTCGTCGATCGATCAAGGATGACCCCAAAGACGCCAAT
GAAAAATGAACCCATCGATCTGTCAAAGCAAAGAATCTTTACTCCGGAAAGAAGTCCCATTACTCCGGTA
AAGCTGGTGGACCGGCAGCCGCAGGTGGAACCGTGGACACCCACGGCCAACCTGAAGATGCTCATCAGTG
CGGCCAGCCCAGACATAAGGGACCGGGAGAAGAAAAAGGAGCTGTTCAGACCCATTGAGAATAAGGGGGA
TGCATTTGTGAACTCCCTGCAGCTTGATGTGGTTGGCGACAGTGCTGTGGATGACTACGAGAAGCGAAGG
CCAAGCAGGAAACAGAAGAGCTTGGGGCTGCTGTGCCAGAAGTTTCTAGCTCGCTATCCAAGCTACCCCT
TGTCCACGGAGAAAACCACCATCTCCCTGGATGAGGTCGCCGTCAGCCTTGGTGTGGAAAGGAGACGCAT
CTATGACATCGTAAATGTGCTGGAGTCTCTGCATCTGGTCAGCCGGGTAGCTAAGAATCAGTATGGTTGG
CATGGTCGGCACAGCCTTCCCAAAACCCTGCGGACCCTACAGAGACTGGGAGAGGAACAGAAATACGAGG
AGCAGATGGCCTGCCTCCAGCAGAAGGAGCTGGACCTGATGGAGTATAGGTTTGGAGAACGCAGGAAAGA
TGGGTCTCCAGATCCCCGAGATCAACACCTACTCGATTTTTCTGAATCCGACTACCCCTCTTCATCTGCA
AACAGTCGAAAAGATAAATCTCTAAGAATTATGAGCCAGAAGTTTGTCATGCTGTTCCTCGTCTCTAAAA
CCAAGATTGTTACCCTGGATGTAGCTGCCAAAATCCTCATAGAAGAAAGCCAAGATACCCCGGACCACAG
TAAATTCAAAACAAAGGTACGGAGGCTCTATGACATAGCCAATGTGCTGACCAGCTTGGCTCTGATAAAG
AAAGTTCACGTGACAGAAGAGCGAGGCCGCAAACCAGCCTTCAAATGGATCGGGCCCGTGGACTTCAGCT
CCATTGATGAAGAACTCTTGGACGTCTCTGCATCTGTCTTACCGGAACTGAAGAAGGAAACATATGGTCA
GATTCGAGTGTGTGCAAAAGAGAGGCTGGCGCGGTACGGTTCCTTTAACACGGTTCAGACATCTGAGAAG
ATACAGAGAAAAGTGAACTCCGAGCCCAGCAGCCCACAGGGAGGAAAACAAGGGCCAGCCTATTCCCTGG
AAATTGGGAGTCTGGCCGCCATCTACAGACAGAAAGTAGAAGACAGTTCGCAGGGGGAAGCCTTTGTCAA
TAAGAGAGCTGCACCTCCAGCAAGTGTCTTGGACCCTACCCTCCCTGTTGACTCCGAATACTGTGTTAAG
CCTTTAGCCCAGCCAGTATTTTCTGTCGCGCAAACAGAAAACCCTCAAATTCCACAGACCTCGCCTTTCC
TG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

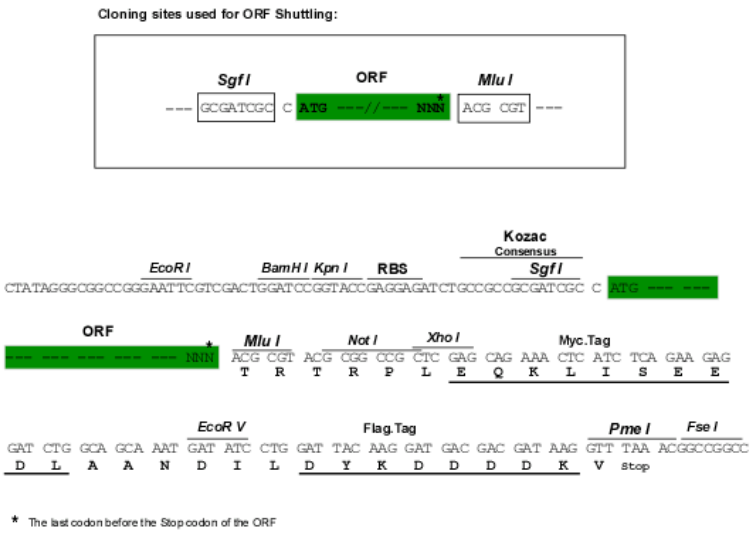
>RR211801 representing NM_001108092
Red=Cloning site Green=Tags(s)

MEVNCLTLKDLISPRQTRLDFAVEDAETAQKENIFVDRSRMTPKTPMKNEPIDLSKQRIFTPERSPITPV
KLVDRQPQVEPWTPTANLKMLISAASPDIRDREKKKELFRPIENKGDAFVNSLQLDVVGDSAVDDYEKRR
PSRKQKSLGLLCQKFLARYPSYPLSTEKTTISLDEVAVSLGVERRRIYDIVNVLESLHLVSRVAKNQYGW
HGRHSLPKTLRTLQRLGEEQKYEEQMACLQQKELDLMEYRFGERRKDGSPDPRDQHLLDFSESDYPSSSA
NSRKDKSLRIMSQKFVMLFLVSKTKIVTLDVAAKILIEESQDTPDHSKFKTKVRRLYDIANVLTSLALIK
KVHVTEERGRKPAFKWIGPVDFSSIDEELLDVSASVLPELKKETYGQIRVCAKERLARYGSFNTVQTSEK
IQRKVNSEPSSPQGGKQGPAYSLEIGSLAAIYRQKVEDSSQGEAFVNKRAAPPASVLDPTLPVDSEYCVK
PLAQPVFSVAQTENPQIPQTSPFL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001108092

ORF Size: 1542 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.

RefSeq: NM_001108092.1, NP_001101562.1

RefSeq Size: 3369 bp

RefSeq ORF: 1545 bp

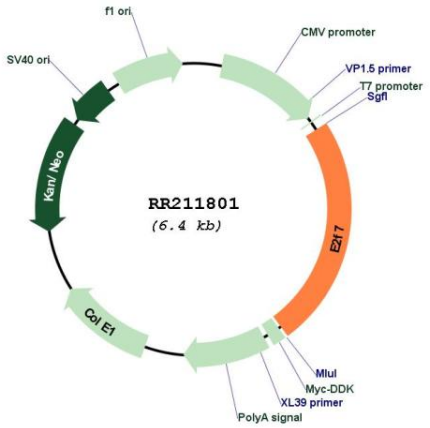
Locus ID: 314818

Cytogenetics: 7q22

MW: 58.4 kDa

Gene Summary: Atypical E2F transcription factor that participates in various processes such as angiogenesis, polyploidization of specialized cells and DNA damage response. Mainly acts as a transcription repressor that binds DNA independently of DP proteins and specifically recognizes the E2 recognition site 5'-TTTC[CG]CGC-3'. Directly represses transcription of classical E2F transcription factors such as E2F1. Acts as a regulator of S-phase by recognizing and binding the E2-related site 5'-TTCCCGCC-3' and mediating repression of G1/S-regulated genes. Plays a key role in polyploidization of cells in placenta and liver by regulating the endocycle, probably by repressing genes promoting cytokinesis and antagonizing action of classical E2F proteins (E2F1, E2F2 and/or E2F3). Required for placental development by promoting polyploidization of trophoblast giant cells. Also involved in DNA damage response: up-regulated by p53/TP53 following genotoxic stress and acts as a downstream effector of p53/TP53-dependent repression by mediating repression of indirect p53/TP53 target genes involved in DNA replication. Acts as a promoter of sprouting angiogenesis, possibly by acting as a transcription activator: associates with HIF1A, recognizes and binds the VEGFA promoter, which is different from canonical E2 recognition site, and activates expression of the VEGFA gene. Acts as a negative regulator of keratinocyte differentiation (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RR211801