OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC215432

TCF3 / E2A (TCF3) (NM_003200) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	TCF3 / E2A
Synonyms:	AGM8; bHLHb21; E2A; E47; ITF1; p75; TCF-3; VDIR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC215432 representing NM_003200
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAACCAGCCGCAGAGGATGGCGCCTGTGGGCACAGACAAGGAGCTCAGTGACCTCCTGGACTTCAGCA
TGATGTTCCCGCTGCCTGTCACCAACGGGAAGGGCCGGCCCGCCTCCCTGGCCGGGGCGCAGTTCGGAGG
TTCAGGTCTTGAGGACCGGCCCAGCTCAGGCTCCTGGGGCAGCGGCGACCAGAGCAGCTCCTCCTTTGAC
CCCAGCCGGACCTTCAGCGAGGGCACCCACTTCACTGAGTCGCACAGCAGCCTCTCTTCATCCACATTCC
TGGGACCGGGACTCGGAGGCAAGAGCGGTGAGCGGGGCGCCTATGCCTCCTTCGGGAGAGACGCAGGCGT
GGGCGGCCTGACTCAGGCTGGCTTCCTGTCAGGCGAGCTGGCCCTCAACAGCCCCGGGCCCCTGTCCCCT
TCGGGCATGAAGGGGACCTCCCAGTACTACCCCTCCTACTCCGGCAGCTCCCGGCGGAGAGCGGCAGACG
GCAGCCTAGACACGCAGCCCAAGAAGGTCCGGAAGGTCCCGCCGGGTCTTCCATCCTCGGTGTACCCACC
CAGCTCAGGTGAGGACTACGGCAGGGATGCCACCGCCTACCCGTCCGCCAAGACCCCCAGCAGCACCTAT
CCCGCCCCCTTCTACGTGGCAGATGGCAGCCTGCACCCCTCAGCCGAGCTCTGGAGTCCCCCGGGCCAGG
CGGGCTTCGGGCCCATGCTGGGTGGGGGCTCATCCCCGCTGCCCCTCCCGCCCGGTAGCGGCCCGGTGGG
CAGCAGTGGAAGCAGCAGCACGTTTGGTGGCCTGCACCAGCACGAGCGTATGGGCTACCAGCTGCATGGA
GCAGAGGTGAACGGTGGGCTCCCATCTGCATCCTCCTTCTCCTCAGCCCCCGGAGCCACGTACGGCGGCG
TCTCCAGCCACACGCCGCCTGTCAGCGGGGCCGACAGCCTCCTGGGCTCCCGAGGGACCACAGCTGGCAG
CTCCGGGGATGCCCTCGGCAAAGCACTGGCCTCGATCTACTCCCCGGATCACTCAAGCAATAACTTCTCG
TCCAGCCCTTCTACCCCCGTGGGCTCCCCCCAGGGCCTGGCAGGAACGTCACAGTGGCCTCGAGCAGGAG
CCCCCGGTGCCTTATCGCCCAGCTACGACGGGGGTCTCCACGGCCTGCAGAGTAAGATAGAAGACCACCT
GGACGAGGCCATCCACGTGCTCCGCAGCCACGCCGTGGGCACAGCCGGCGACATGCACACGCTGCTGCCT
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CCAGCCAGGCACCCTCCCTGACCTGTCTCGGCCTCCCGACTCCTACAGTGGGCTAGGGCGAGCAGGTGCC
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CGGAGGAGGAGAAGAAGGAGCTGAAGGCCCCCCGGGCCCGGACCAGCCCAGACGAGGACGAGGACGACCT
TCTCCCCCCAGAGCAGAAGGCCGAGCGGGAGAAGGAGCGCCGGGTGGCCAATAACGCCCGGGAGCGGCTG
CGGGTCCGTGACATCAACGAGGCCTTTAAGGAGCTGGGGCGCATGTGCCAACTGCACCTCAACAGCGAGA
AGCCCCAGACCAAACTGCTCATCCTGCACCAGGCTGTCTCGGTCATCCTGAACTTGGAGCAGCAAGTGCG
AGAGCGGAACCTGAATCCCAAAGCAGCCTGTTTGAAACGGCGAGAAGAGGAAAAGGTGTCAGGTGTGGTT
GGAGACCCCCAGATGGTGCTTTCAGCTCCCCACCCAGGCCTGAGCGAAGCCCACAACCCCGCCGGGCACA
TG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC215432 representing NM_003200
Red=Cloning site Green=Tags(s)

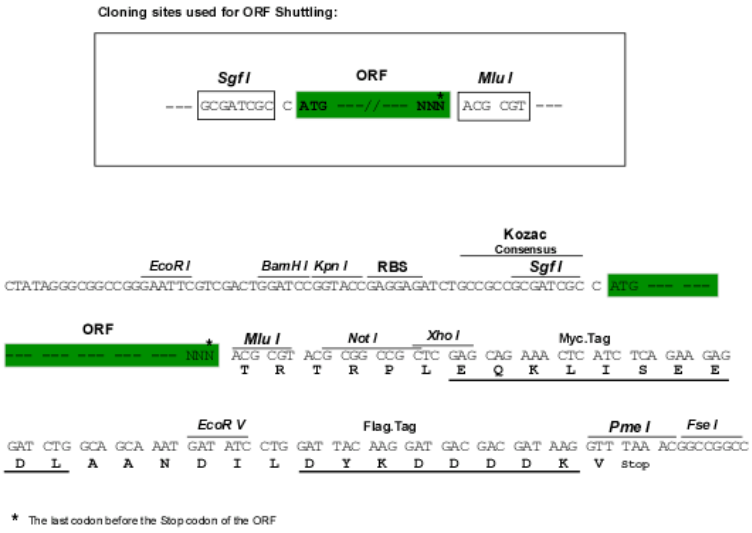
MNQPQRMAPVGTDKELSDLLDFSMMFPLPVTNGKGRPASLAGAQFGGSGLEDRPSSGSWGSGDQSSSSFD
PSRTFSEGTHFTESHSSLSSSTFLGPGLGGKSGERGAYASFGRDAGVGGLTQAGFLSGELALNSPGPLSP
SGMKGTSQYYPSYSGSSRRRAADGSLDTQPKKVRKVPPGLPSSVYPPSSGEDYGRDATAYPSAKTPSSTY
PAPFYVADGSLHPSAELWSPPGQAGFGPMLGGGSSPLPLPPGSGPVGSSGSSSTFGGLHQHERMGYQLHG
AEVNGGLPSASSFSSAPGATYGGVSSHTPPVSGADSLLGSRGTTAGSSGDALGKALASIYSPDHSSNNFS
SSPSTPVGSPQGLAGTSQWPRAGAPGALSPSYDGGLHGLQSKIEDHLDEAIHVLRSHAVGTAGDMHTLLP
GHGALASGFTSPMSLGGRHAGLVGGSHPEDGLAGSTSLMHNHAALPSQPGTLPDLSRPPDSYSGLGRAGA
TAAASEIKREEKEDEENTSAADHSEEEKKELKAPRARTSPDEDEDDLLPPEQKAEREKERRVANNARERL
RVRDINEAFKELGRMCQLHLNSEKPQTKLLILHQAVSVILNLEQQVRERNLNPKAACLKRREEEKVSGVV
GDPQMVLSAPHPGLSEAHNPAGHM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6120_d07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003200

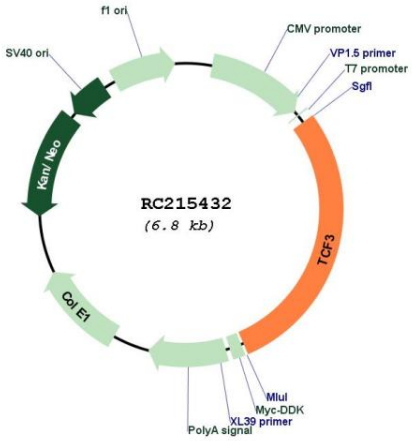
ORF Size: 1962 bp

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

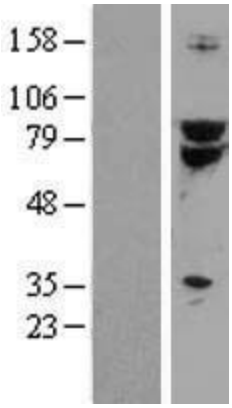
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	NM_003200.5
RefSeq Size:	4396 bp
RefSeq ORF:	1965 bp
Locus ID:	6929
UniProt ID:	P15923
Cytogenetics:	19p13.3
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Induced pluripotent stem cells, Transcription Factors
MW:	67.4 kDa
Gene Summary:	This gene encodes a member of the E protein (class I) family of helix-loop-helix transcription factors. E proteins activate transcription by binding to regulatory E-box sequences on target genes as heterodimers or homodimers, and are inhibited by heterodimerization with inhibitor of DNA-binding (class IV) helix-loop-helix proteins. E proteins play a critical role in lymphopoiesis, and the encoded protein is required for B and T lymphocyte development. Deletion of this gene or diminished activity of the encoded protein may play a role in lymphoid malignancies. This gene is also involved in several chromosomal translocations that are associated with lymphoid malignancies including pre-B-cell acute lymphoblastic leukemia (t(1;19), with PBX1), childhood leukemia (t(19;19), with TFPT) and acute leukemia (t(12;19), with ZNF384). Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene, and a pseudogene of this gene is located on the short arm of chromosome 9. [provided by RefSeq, Sep 2011]

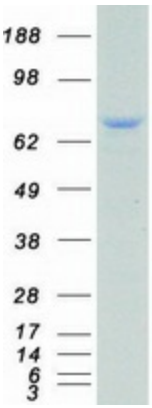
Product images:



Circular map for RC215432



Western blot validation of overexpression lysate (Cat# [LY401107]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215432 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TCF3 protein (Cat# [TP315432]). The protein was produced from HEK293T cells transfected with TCF3 cDNA clone (Cat# RC215432) using MegaTran 2.0 (Cat# [TT210002]).