

## Product datasheet for **RC231040**

### DDIT3 (NM\_001195053) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DDIT3 (NM_001195053) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DDIT3
Synonyms:	AltDDIT3; C/EBPzeta; CEBPZ; CHOP; CHOP-10; CHOP10; GADD153
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC231040 representing NM_001195053 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGAGCTTGTTCCAGCCACTCCCCATTATCCTGCAGATGTGCTTTCCAGACTGATCCAACCTGCAGAGA  
 TGGCAGCTGAGTCATTGCCTTTCTCTTTGGGACACTGTCCAGCTGGGAGCTGGAAGCCTGGTATGAGGA  
 CCTGCAAGAGGTCCTGTCTTCAGATGAAAATGGGGTACCTATGTTTCACCTCCTGGAAATGAAGAGGAA  
 GAATCAAAAATCTTCACCACTCTTGACCCTGCTTCTCTGGCTTGCTGACTGAGGAGGAGCCAGAACCAG  
 CAGAGGTCACAAGCACCTCCCAGAGCCCTCACTCTCCAGATTCAGTCAGAGCTCCCTGGCTCAGGAGGA  
 AGAGGAGGAAGACCAAGGAGAACCAGGAAACGGAACAGAGTGGTCATTCCCCAGCCCGGCTGGAAAG  
 CAGCGCATGAAGGAGAAAGAACAGGAGAATGAAAGGAAAGTGGCACAGCTAGCTGAAGAGAATGAACGGC  
 TCAAGCAGGAAATCGAGCGCCTGACCAGGGAAGTAGAGGCGACTCGCCGAGCTCTGATTGACCGAATGGT  
 GAATCTGCACCAAGCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC231040 representing NM_001195053 Red=Cloning site Green=Tags(s)
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MELVPATPHYPADVLFQTDPTAEMAAESLPFSFGLSSWELEAWYEDLQEVLSSENGGTYVSPPGNEEE  
 ESKIFTTLDPASLAWL TEEPEPAEVTSTSQSPHSPDSSQSSLAQEEEEEDQGRTRKRKQSGHSPARAGK  
 QRMKEKEQENERKVAQLAEENERLKQEIERL TREVEATRRALIDRMVNLHQA

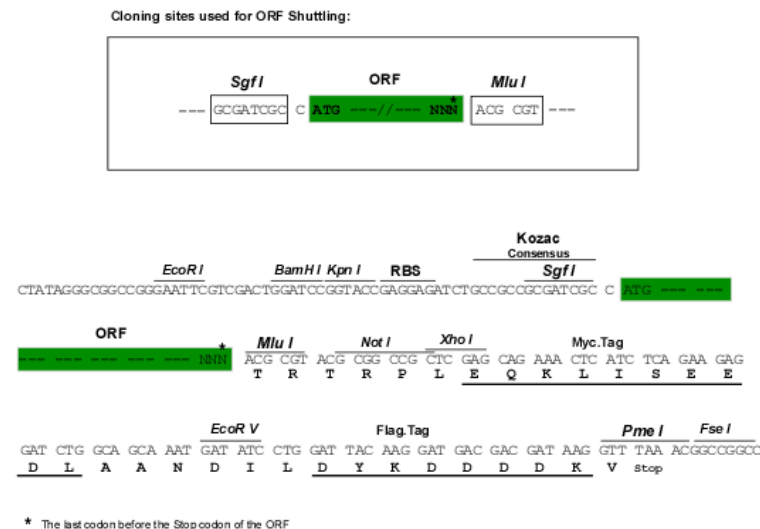
**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV


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**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1817\\_b10.zip](https://cdn.origene.com/chromatograms/ja1817_b10.zip)

Restriction Sites: Sgfl-MluI

### Cloning Scheme:



ACCN: NM 001195053

ORF Size: 576 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** NM\_001195053.1, NP\_001181982.1

**RefSeq ORF:** 579 bp

**Locus ID:** 1649

**UniProt ID:** P35638

**Cytogenetics:** 12q13.3

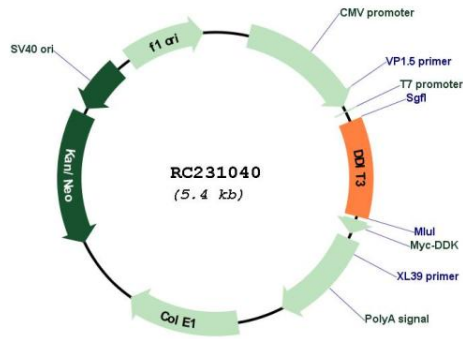
**Protein Families:** Druggable Genome, Transcription Factors

**Protein Pathways:** MAPK signaling pathway

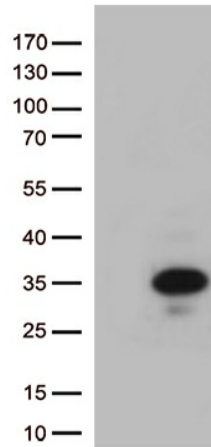
**MW:** 22.1 kDa

**Gene Summary:** This gene encodes a member of the CCAAT/enhancer-binding protein (C/EBP) family of transcription factors. The protein functions as a dominant-negative inhibitor by forming heterodimers with other C/EBP members, such as C/EBP and LAP (liver activator protein), and preventing their DNA binding activity. The protein is implicated in adipogenesis and erythropoiesis, is activated by endoplasmic reticulum stress, and promotes apoptosis. Fusion of this gene and FUS on chromosome 16 or EWSR1 on chromosome 22 induced by translocation generates chimeric proteins in myxoid liposarcomas or Ewing sarcoma. Multiple alternatively spliced transcript variants encoding two isoforms with different length have been identified. [provided by RefSeq, Aug 2010]

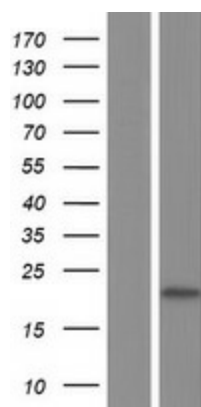
## Product images:



Circular map for RC231040



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DDIT3 (Cat# RC231040, 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-DDIT3 (Cat# [TA802218])(1:500).



Western blot validation of overexpression lysate (Cat# [LY434039]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC231040 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).