

## Product datasheet for MR227338

### Ddit4 (NM\_029083) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Ddit4 (NM\_029083) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Ddit4  
**Synonyms:** 5830413E08Rik; AA415483; dig2; REDD1; Rtp801  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR227338 representing NM\_029083  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGATCGCC

ATGCCTAGCCTCTGGGATCGTTTCTCGTCCTCCTTCTCCTTCGTCCTCGTCTCGAACTCCGGCCGCTG  
 ATCGGCCCGCGCTCCGCCTGGGGTCTGCAGCCAGAGAAGAGGGCCTTGACCGCTGCGCGAGCCTGGA  
 GAGCTCGGACTGCGAGTCCCTGGACAGCAGCAACAGTGGCTTCGGGCCGAGGAAGACTCCTCATACTG  
 GATGGGGTGTCCCTGCCGACTTTGAGCTGCTCAGTGACCCCGAGGATGAGCACCTGTGTCCAACCTGA  
 TGCAGCTGCTGCAGGAGACCTGTCCCAGGCGGATTGGGCTCGCGGCCCTGCGGTTTGCTCATGCC  
 GAGCCAGCTGGTGGAGCCAGGTTGGCAAGGAACTCCTGCGCTGGCATAACAGTGGCCGTGCGGCCTGCGG  
 GGGCACTGCTGGACGTGTGTGGAGCAAGGCAAGAGCTGCCATAGCGTGGCTCAGTGGCCCTCGACC  
 CCAGCCTGGTGGCCACCTTTAGTTGACCTGGTGTGCGTCTGGACTCTCGCCTCTGGCCCAAGATCCA  
 GGGGCTGTTAAGTTCTGCCAACTCTTCTTGGTCCCTGTTACAGCCAGTCCCTGACGCTAAGTACCGGC  
 TTCAGAGTCATCAAGAAGAACTCTACAGCTCCGAGCAGCTGCTCATTGAAGAGTGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR227338 representing NM\_029083  
 Red=Cloning site Green=Tags(s)

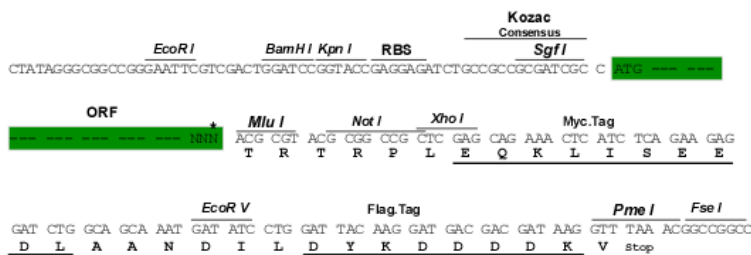
MPSLWDRFSSSSSSSSSRTPAADRPPRSAWGSAAREEGLDRCASLESSDCESLDSSNSGFGPEEDSSYL  
 DGVSLPDFELLSDPEDEHLCANLMQLLQESLSQARLGSRPARLLMPSQLVSVQVKELLRLAYSEPCGLR  
 GALLDVCVEQKGSCHSVAQLALDPSLVPTFQLTLVLRRLDSRLWPKIQGLLSSANSSLVPGYSQLTLSTG  
 FRVIKKKLYSSEQLLIEEC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_029083

**ORF Size:** 687 bp

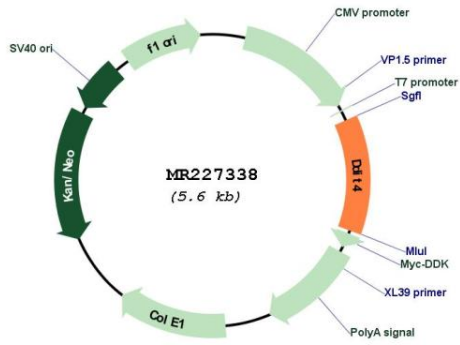
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_029083.2</a></u> , <u><a href="#">NP_083359.1</a></u>
<b>RefSeq Size:</b>	1685 bp
<b>RefSeq ORF:</b>	690 bp
<b>Locus ID:</b>	74747
<b>UniProt ID:</b>	<u><a href="#">Q9D3F7</a></u>
<b>Cytogenetics:</b>	10 B4
<b>MW:</b>	25.3 kDa
<b>Gene Summary:</b>	Regulates cell growth, proliferation and survival via inhibition of the activity of the mammalian target of rapamycin complex 1 (mTORC1). Inhibition of mTORC1 is mediated by a pathway that involves DDIT4/REDD1, AKT1, the TSC1-TSC2 complex and the GTPase RHEB. Plays an important role in responses to cellular energy levels and cellular stress, including responses to hypoxia and DNA damage. Regulates p53/TP53-mediated apoptosis in response to DNA damage via its effect on mTORC1 activity. Its role in the response to hypoxia depends on the cell type; it mediates mTORC1 inhibition in fibroblasts and thymocytes, but not in hepatocytes. Inhibits neuronal differentiation and neurite outgrowth mediated by NGF via its effect on mTORC1 activity. Required for normal neuron migration during embryonic brain development. Plays a role in neuronal cell death. Required for mTORC1-mediated defense against viral protein synthesis and virus replication.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR227338