

Product datasheet for **SC128247**

DDIT4 (NM_019058) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DDIT4 (NM_019058) Human Untagged Clone
Tag:	Tag Free
Symbol:	DDIT4
Synonyms:	Dig2; REDD-1; REDD1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF sequence for NM_019058 edited ATGCCTAGCCTTTGGGACCGCTTCTCGTCGTGTCACCTCCTTCGCCCTCGTCCTTG CCCCGAACCTCCCACCCAGATCGGCCCGCGCTCAGCCTGGGGGTCGGCGACCCGGGAG GAGGGGTTTGACCGCTCCACGAGCCTGGAGAGCTCGGACTGCGAGTCCCTGGACAGCAGC AACAGTGGCTTCGGGCCGAGGAAGACACGGCTTACCTGGATGGGGTGTCGTTGCCCGAC TTCGAGCTGCTCAGTGACCCTGAGGATGAACACTTGTGTGCCAACCTGATGCAGCTGCTG CAGGAGAGCCTGGCCAGGCGGGCTGGGCTCTCGACGCCCTGCGCGCCTGCTGATGCCT AGCCAGTTGGTAAGCCAGGTGGCAAAGAATACTGCGCCTGGCCTACAGCGAGCCGTGC GGCCTGCGGGGGCGCTGCTGGACGTCTGCGTGGAGCAGGGCAAGAGCTGCCACAGCGTG GGCCAGCTGGCACTCGACCCAGCCTGGTGGCCACCTTCCAGCTGACCCTCGTGCTGCGC CTGGACTCAGACTCTGGCCCAAGATCCAGGGGCTGTTTAGCTCCGCCAACTCTCCCTTC CTCCCTGGCTTCAGCCAGTCCCTGACGCTGAGCACTGGCTCCGAGTCATCAAGAAGAAG CTGTACAGCTTGAACAGCTGCTCATTGAGGAGTGTGA
Restriction Sites:	NotI-NotI
ACCN:	NM_019058
Insert Size:	1800 bp



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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 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](#)

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_019058.2](#), [NP_061931.1](#)

RefSeq Size: 1752 bp

RefSeq ORF: 699 bp

Locus ID: 54541

UniProt ID: [Q9NX09](#)

Cytogenetics: 10q22.1

Protein Pathways: mTOR signaling pathway

Gene Summary:

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 (By similarity). Required for mTORC1-mediated defense against viral protein synthesis and virus replication (By similarity). 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. [UniProtKB/Swiss-Prot Function]