

### OriGene Technologies, Inc.

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# Product datasheet for MR227338L4V

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

## **Product data:**

| Product Type:                | Lentiviral Particles  |
|------------------------------|---|
| Product Name:                | Ddit4 (NM_029083) Mouse Tagged ORF Clone Lentiviral Particle  |
| Symbol:                      | Ddit4   |
| Synonyms:                    | 5830413E08Rik; AA415483; dig2; REDD1; Rtp801  |
| Mammalian Cell<br>Selection: | Puromycin   |
| Vector:                      | pLenti-C-mGFP-P2A-Puro (PS100093)   |
| Tag:                         | mGFP  |
| ACCN:                        | NM_029083   |
| ORF Size:                    | 687 bp  |
| ORF Nucleotide<br>Sequence:  | The ORF insert of this clone is exactly the same as(MR227338).  |
| 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. <u>More info</u> |
| OTI Annotation:              | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.  |
| RefSeq:                      | <u>NM 029083.2, NP 083359.1</u>   |
| RefSeq Size:                 | 1685 bp   |
| RefSeq ORF:                  | 690 bp  |
| Locus ID:                    | 74747   |
| UniProt ID:                  | Q9D3F7  |
| Cytogenetics:                | 10 B4   |
|                              |   |



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Gene Summary:Regulates cell growth, proliferation and survival via inhibition of the activity of the<br/>mammalian target of rapamycin complex 1 (mTORC1). Inhibition of mTORC1 is mediated by a<br/>pathway that involves DDIT4/REDD1, AKT1, the TSC1-TSC2 complex and the GTPase RHEB.<br/>Plays an important role in responses to cellular energy levels and cellular stress, including<br/>responses to hypoxia and DNA damage. Regulates p53/TP53-mediated apoptosis in response<br/>to DNA damage via its effect on mTORC1 activity. Its role in the response to hypoxia depends<br/>on the cell type; it mediates mTORC1 inhibition in fibroblasts and thymocytes, but not in<br/>hepatocytes. Inhibits neuronal differentiation and neurite outgrowth mediated by NGF via its<br/>effect on mTORC1 activity. Required for normal neuron migration during embryonic brain<br/>development. Plays a role in neuronal cell death. Required for mTORC1-mediated defense<br/>against viral protein synthesis and virus replication.[UniProtKB/Swiss-Prot Function]

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