

# Product datasheet for TL514098

## Dtd2 Mouse shRNA Plasmid (Locus ID 328092)

## **Product data:**

### 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 Type:                | shRNA Plasmids   |
|------------------------------|--|
|                              |  |
| Product Name:                | Dtd2 Mouse shRNA Plasmid (Locus ID 328092)   |
| Locus ID:                    | 328092   |
| Synonyms:                    | 4930578F06Rik; 6530401N04Rik; B830049N13Rik  |
| Vector:                      | pGFP-C-shLenti (TR30023)   |
| E. coli Selection:           | Chloramphenicol (34 ug/ml)   |
| Mammalian Cell<br>Selection: | Puromycin  |
| Format:                      | Lentiviral plasmids  |
| Components:                  | Dtd2 - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 328092).<br>5µg purified plasmid DNA per construct<br>29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.   |
| RefSeq:                      | <u>BC089589, NM_001347404, NM_029545, NM_029545.1, NM_029545.2, NM_029545.3</u>  |
| UniProt ID:                  | Q8BHA3   |
| Summary:                     | Deacylates mischarged D-aminoacyl-tRNAs. Probably acts by rejecting L-amino acids from its binding site rather than specific recognition of D-amino acids. Catalyzes the hydrolysis of D-tyrosyl-tRNA(Tyr), has no activity on correctly charged L-tyrosyl-tRNA(Tyr). By recycling D-aminoacyl-tRNA to D-amino acids and free tRNA molecules, this enzyme counteracts the toxicity associated with the formation of D-aminoacyl-tRNA entities in vivo and helps enforce protein L-homochirality. In contrast to DTD1, deacylates L-Ala mischarged on tRNA(Thr) (G4.U69) by alanine-tRNA ligase AARS. Can deacylate L-Ala due to a relaxed specificity for substrate chirality caused by the trans conformation of the Gly-Pro motif in the active site. Also hydrolyzes correctly charged, achiral, glycyl-tRNA(Gly) in vitro, although in vivo EEF1A1/EF-Tu may protect cognate achiral glycyl-tRNA(Gly) from DTD2-mediated deacetylation.[UniProtKB/Swiss-Prot Function] |
| shRNA Design:                | These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact <u>techsupport@origene.com</u> .<br>If you need a special design or shRNA sequence, please utilize our <u>custom shRNA service</u> .   |



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### **CRIGENE** Dtd2 Mouse shRNA Plasmid (Locus ID 328092) – TL514098

Performance Guaranteed: OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).

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