

Product datasheet for **MC214512**

Dtd2 (NM_029545) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Dtd2 (NM_029545) Mouse Untagged Clone
Tag: Tag Free
Symbol: Dtd2
Synonyms: 4930578F06Rik; 6530401N04Rik; B830049N13Rik
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC214512 representing NM_029545
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGACGGTGGTCTGTGGCCAGGCTCGTGCCTCCTGCAGCAGTGCCTGCACGCTCGCTGCAAG
TGCGCCCGCCGATGGAGACGCCGCGCAGTGGTGGAGATTCGGAGAGGATTGGTGATCTATGTGTG
TTTCTCAAGGGAGCTGACACAGACCTTCTCCCAAAATGGTTAATACGCTGTTAAATGTGAAGTTAAGC
GAAACGGAAACCGCAAGCACGTCTCCATCCTCGATCTGCCTGGCGATGTTCTGATCATCCGCAAGCCA
CCCTCGGGGGCAGGGTGAAGGGCGGAGCATGCAGTACCACTCTAACTCTGGAAAGGAGGAGGGCTCAGA
ACTGTACTCCCAGTTTGTGAGTCTGTGTGAAAAAGCCGTGGCCAACAACCAAGAGTGTAGAAGCGGGG
GTTGCGGTGGCGCACGGCACGTACGGGAACAGGCAAGTGTAAAGCTGGACACCAATGGACCCTACACGC
ACCTCATTGAGTTT**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_029545
Insert Size: 507 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).



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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:	<ol style="list-style-type: none">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:	<u>NM_029545.2, NP_083821.1</u>
RefSeq Size:	2564 bp
RefSeq ORF:	507 bp
Locus ID:	328092
UniProt ID:	<u>Q8BHA3</u>
Cytogenetics:	12 C1
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (2) lacks an exon and its 3' terminal exon extends past a splice site that is used in variant 1. This results in a novel 3' coding region and 3' UTR, compared to variant 1. The encoded isoform (2) is longer and has a distinct C-terminus, compared to isoform 1.</p>