

Product datasheet for **MG220756**

Dtd2 (NM_029545) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Dtd2 (NM_029545) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Dtd2
Synonyms: 4930578F06Rik; 6530401N04Rik; B830049N13Rik
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG220756 representing NM_029545
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGGACGGTGGTTCGTGTGGCCAGGCTCGTGCCTCCTGCAGCAGTGCCTGCACGCTCGCTGCAAG
 TGGCCCCGGCGATGGAGACGCCGCGCGCAGTGGGTGGAGATTCGGAGAGGATTGGTGATCTATGTGTG
 TTTCTTCAAGGGAGCTGACACAGACCTTCTCCCAAAATGGTTAATACGCTGTTAAATGTGAAGTTAAGC
 GAAACGGAACCGCAAGCAGTCTCCATCCTCGATCTGCCTGGCGATGTTCTGATCATCCGCAAGCCA
 CCCTCGGGGGCAGGGTGAAGGGCGGAGCATGCAGTACCACTCTAACTCTGGAAAGGAGGAGGGCTCAGA
 ACTGTACTCCAGTTTGTGAGTCTGTGTGAAAAAGCCGTGGCCAACAACCAAGAGTGTAGAAGCGGGG
 GTTGCGGTGGCGCACGGCACGTACGGGAACAGGCAAGTGTAAAGCTGGACACCAATGGACCCTACACGC
 ACCTCATTGAGTTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG220756 representing NM_029545
 Red=Cloning site Green=Tags(s)

MADGGRVAQARALLQQCLHARLQVRPADGDAAAQWEIRRGLVIYVCFKADTDLLPKMVNTLLNVKLS
 ETETGKHVSILDLPDVLIIIPQATLGGRVKGRSMQYHSNSGKEEGSELYSQFVSLCEKAVANNTKSVEAG
 VAVAHGTYGNRQVLKLDTNGPYTHLIEF

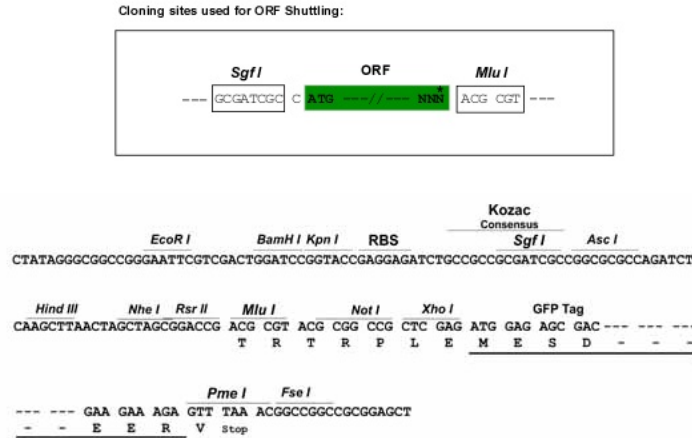
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

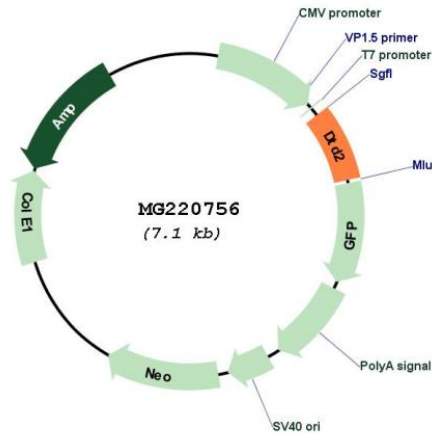


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Cloning Scheme:



Plasmid Map:



ACCN: NM_029545

ORF Size: 504 bp

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. [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.

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:	NM_029545.3
RefSeq Size:	2564 bp
RefSeq ORF:	507 bp
Locus ID:	328092
UniProt ID:	Q8BHA3
Cytogenetics:	12 C1
Gene 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]