

## Product datasheet for **MG202251**

### Dtd1 (BC026537) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Dtd1 (BC026537) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Dtd1  
**Synonyms:** 0610006H08Rik; DUE-B; Hars2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG202251 representing BC026537  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAAGGCCGTGGTGCAGCGCTCACTCGGGCTAGCGTCACAGTTGGAGGAGAGCAGATAAGCGCCATCG  
 GACGGGGCATCTGTCTTGTGGTATTTCCATGGAAGACTCACAGAAGGAAGTGAACACATGGTTCCG  
 AAAGATTTTAAATCTGCGTGTGTTGAGGACGAGAGTGGGAAGCACTGGTCCAAGAGCGTGATGGATAAG  
 GAGTACGAGGTGCTGTGTGCAGCCAGTTCACCCTCCAGTGCCTCAAGGGGAACAAGCCCGACTTCC  
 ACCTGGCCATGCCACAGAGCAGGCAGAGAGCTTCTACAACAGCTTCTGGAGCAGCTTCGCAAGAGCTA  
 CAGACCAGAGCTTATCAGAGATGGCAAGTTTGGTGCCTACATGCAGGTGCACATTCAGAACGATGGCCT  
 GTGACTATAGAGCTGGAGTCCCCTGCTCCTGGAGCTGCTAGCTCTGACCCAAAGCAGCTGTCAAAGCTGG  
 AGAAACAGCAGCAGAGAAAAGAAAAGACCAGAGCCAAAGGCCCTTCTGAGTCAAGCAAAGAACGGAATGC  
 ACCCCGAAAGAAGACCGCAGCGCCAGCAGCGGGCAGAGGGTGACGTGTCTTCTGAGCGGGAGCCA

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >MG202251 representing BC026537  
 Red=Cloning site Green=Tags(s)

MKAVVQRVTRASVTVGGEQISAIGRGICVLLGISMEDSQKELEHMVRKILNLRVFEDESGKHWSKSVMDK  
 EYEVLCVSQFTLQCVLKGNKPDFHLAMPTEQAESFYNSFLEQLRKSYPPELIRDGKFGAYMQVHIQNDGP  
 VTIELESPAPGAASSDPKQLSKLEKQQQRKEKTRAKGPSESSKERNAPRKEDRSASSGAEGDVSSEREP

**TRTRPLE** - GFP Tag - V

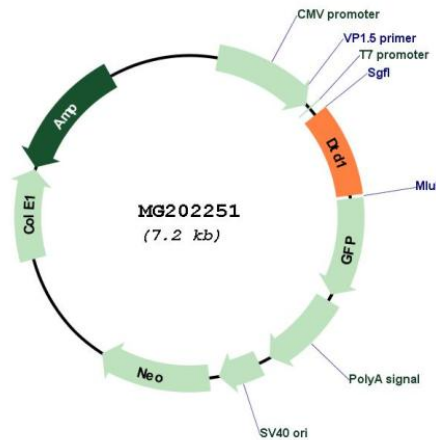
**Restriction Sites:** Sgfl-MluI



Cloning Scheme:



Plasmid Map:



ACCN: BC026537

ORF Size: 629 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:**

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:** [BC026537](#), [AAH26537](#)

**RefSeq Size:** 1239 bp

**RefSeq ORF:** 629 bp

**Locus ID:** 66044

**Cytogenetics:** 2 G1

**Gene Summary:** An aminoacyl-tRNA editing enzyme that deacylates mischarged D-aminoacyl-tRNAs. Also deacylates mischarged glycyl-tRNA(Ala), protecting cells against glycine mischarging by AlaRS. Acts via tRNA-based rather than protein-based catalysis; rejects L-amino acids rather than detecting D-amino acids in the active site. 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. [UniProtKB/Swiss-Prot Function]