

Product datasheet for MR220756

Dtd2 (NM_029545) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Dtd2 (NM_029545) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Dtd2
Synonyms: 4930578F06Rik; 6530401N04Rik; B830049N13Rik
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR220756 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGCGGACGGTGGTGGTGGCCAGGCTCGTGCCTCCTGCAGCAGTGCCTGCACGCTCGCCTGCAAG
 TGGCGCCGCGGATGGAGACGCCGCGCGCAGTGGTGGAGATTCGGAGAGGATTGGTGATCTATGTGTG
 TTTCTTCAAGGGAGCTGACACAGACCTTCTCCCCAAATGGTTAATACGCTGTTAAATGTGAAGTTAAGC
 GAAACGGAACCGCAAGCACGTCTCCATCCTCGATCTGCCTGGCGATGTTCTGATCATCCCGCAAGCCA
 CCCTCGGGGCGAGGTGAAAGGGCGGAGCATGCAGTACCACTCTAACTCTGGAAAGGAGGAGGGCTCAGA
 ACTGTACTCCAGTTTGTGAGTCTGTGTGAAAAAGCCGTGGCCAACAACCAAGAGTGTAGAAGCGGGG
 GTTGCGGTGGCGCACGGCACGTACGGGAACAGGCAAGTGTAAAGCTGGACACCAATGGACCCTACACGC
 ACCTCATTGAGTTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR220756 protein sequence
 Red=Cloning site Green=Tags(s)

MADGGRVAQARALLQQCLHARLQVRPADGDAAAQWVEIRRLVIYVCFKADTDLLPKMVNTLLNVKLS
 ETETGKHVSILDLPGDVLIIIPQATLGGRVKGRSMQYHSNSGKEEGSELYSQFVSLCEKAVANNTKSVEAG
 VAVAHGTYGNRQVLKLDNTPYTHLIEF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI


[View online »](#)

Cloning Scheme:



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:

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_029545.3](#)

RefSeq Size: 2564 bp

RefSeq ORF: 507 bp

Locus ID: 328092

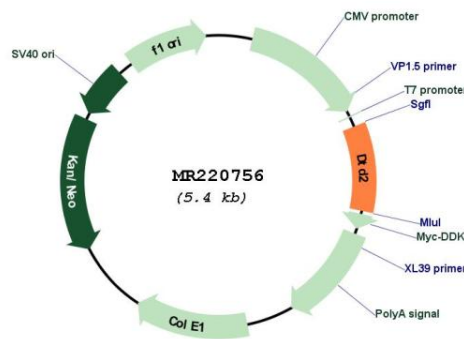
UniProt ID: [Q8BHA3](#)

Cytogenetics: 12 C1

MW: 18.2 kDa

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]

Product images:



Circular map for MR220756