

Product datasheet for **RG202312**

C14orf126 (DTD2) (NM_080664) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Tag: TurboGFP
Symbol: C14orf126
Synonyms: ATD; C14orf126
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG202312 representing NM_080664
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGAGGGTAGCCGGATTCTCAGGCCCGGGCGCTCTACAGCAGTGCCTGCACGCCCGGCTGCAAA
TTCGCCACCGCATGGGGACGTCGCGGCCCACTGGGTGGAGGTCCAAAGAGGACTGGTGATCTACGTGTG
CTTTTTCAAGGGAGCTGATAAAGAATTCTTCCAAAATGGTTAATACACTGTTAAATGTGAAATTAAGT
GAGACAGAAATGGCAAGCATGTCTATATTGGATCTACCTGGCAACATTCTTATTATCCCTCAAGCTA
CCCTTGGAGGAAGACTAAAAGGAAGAAACATGCAATATCACTCTAACTCTGGAAGAAAGAGGGTTTGA
ACTTTACTCTCAATTTGTGACTCTATGTGAAAAAGAGTAGCTGCTAATAGCAAGTGTGCTGAAGCTAGG
GTTGTAGTGAACATGGCACTTATGGGAACAGGCAGGTGTTAAAGCTGGACCAACGGACCATTCACAC
ACTTAATTGAGTTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG202312 representing NM_080664
Red=Cloning site Green=Tags(s)

MAEGSRIPQARALLQQCLHARLQIRPADGDVAAQWVEVQRGLVIYVCFKADKELLPKMVNTLLNVKLS
ETENGKHVSILDLPGNIIIPQATLGRLKGRNMQYHSNSGKEGFELYSQFVTLCEKEVAANSKCAEAR
VVVEHGTYGNRQVLKLDTNGPFTHLIEF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



Cloning Scheme:



ACCN: NM_080664

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.

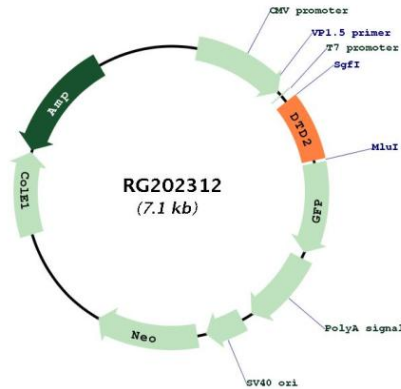
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_080664.3](#)

RefSeq Size: 1437 bp
 RefSeq ORF: 507 bp
 Locus ID: 112487
 UniProt ID: [Q96FN9](#)
 Cytogenetics: 14q12

Gene Summary: Deacylates mischarged D-aminoacyl-tRNAs (By similarity). Probably acts by rejecting L-amino acids from its binding site rather than specific recognition of D-amino acids (By similarity). Catalyzes the hydrolysis of D-tyrosyl-tRNA(Tyr), has no activity on correctly charged L-tyrosyl-tRNA(Tyr) (By similarity). 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 (PubMed:29410408). 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 (PubMed:29410408). 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 (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG202312