

## Product datasheet for **RC207233**

### DTD1 (NM\_080820) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** DTD1 (NM\_080820) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** DTD1  
**Synonyms:** C20orf88; DTD; DUE-B; DUEB; HARS2; pqn-68  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC207233 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAAGGCCGTGGTGCAGCGCGTCACCCGGCCAGCGTCACAGTTGGAGGAGAGCAGATTAGTGCCATTG  
 GAAGGGGCATATGTGTGTGCTGGGATTTCCCTGGAGGATACGCAGAAGGAAGTGAACACATGGTCCG  
 AAAGATTCTAAACCTGCGTGTATTTGAGGATGAGAGTGGGAAGCACTGGTCAAGAGTGTGATGGACAAA  
 CAGTACGAGATTCTGTGTGCAGCCAGTTACCCTCCAGTGTGCTCCTGAAGGAAACAAGCCTGATTCA  
 ACCTAGCAATGCCACGGAGCAGGCAGAGGGCTTCTACAACAGCTTCTGGAGCAGCTGCGTAAACATA  
 CAGGCCGGAGCTTATCAAGATGGCAAGTTGGGGCCTACATGCAGGTGCACATTCAGAATGATGGCCT  
 GTGACCATAGAGCTGGAATCGCCAGCTCCCGGCACTGCTACCTCTGACCCAAAGCAGCTGTCAAAGCTCG  
 AAAACAGCAGCAGAGGAAAGAAAAGACCAGAGCTAAGGGACCTTCTGAATCAAGCAAGGAAAGAAACAC  
 TCCCCGAAAAGAAGACCGCAGTGCCAGCAGCGGGGCTGAGGGCGACGTGCTCCTCTGAACGGGAGCCG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC207233 protein sequence  
 Red=Cloning site Green=Tags(s)

MKAVVQRVTRASVTVGGEQISAIGRGICVLLGISLEDTQKELEHMRKILNLRVFEDESGKHWSKSVMDK  
 QYEILCVSQFTLQCVLKGKPDFNLAMPTEQAEGFYNSFLEQLRKTYRPELIKDGKFGAYMQVHIQNDGP  
 VTIELESPAPGTATSDPKQLSKLEKQQQRKEKTRAKGPSESSKERNTPRKEDRSASSGAEGDVSSEREP

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

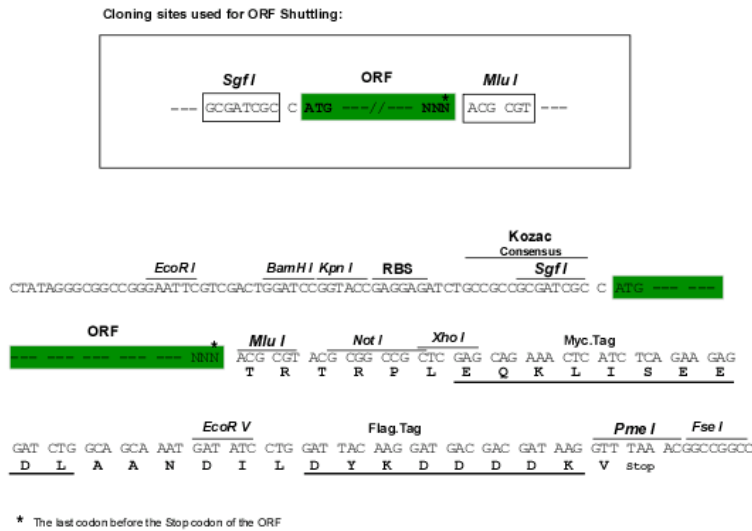


[View online »](#)

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6341\\_b11.zip](https://cdn.origene.com/chromatograms/mk6341_b11.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_080820

**ORF Size:** 627 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:** [NM\\_080820.6](#)

**RefSeq Size:** 1368 bp

**RefSeq ORF:** 630 bp

**Locus ID:** 92675

UniProt ID: [Q8TEA8](#)

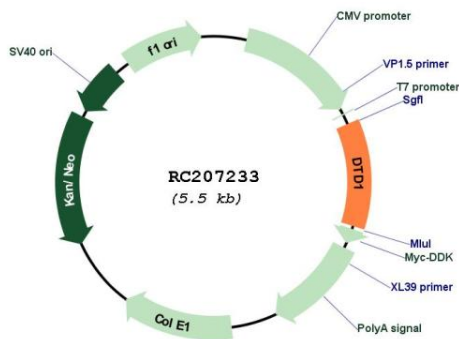
Cytogenetics: 20p11.23

Domains: DUF154

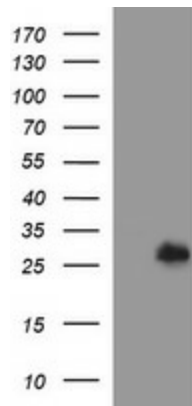
MW: 23.4 kDa

**Gene Summary:** The protein encoded by this gene is similar in sequence to histidyl-tRNA synthetase, which hydrolyzes D-tyrosyl-tRNA(Tyr) into D-tyrosine and free tRNA(Tyr). The encoded protein binds the DNA unwinding element and plays a role in the initiation of DNA replication. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Dec 2015]

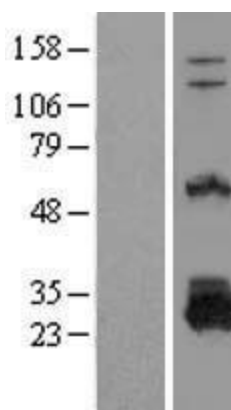
**Product images:**



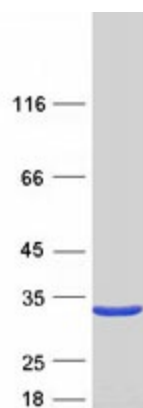
Circular map for RC207233



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DTD1 (Cat# RC207233, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-DDT1 (Cat# [TA506880]). Positive lysates [LY409024] (100ug) and [LC409024] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY409024]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207233 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DTD1 protein (Cat# [TP307233]). The protein was produced from HEK293T cells transfected with DTD1 cDNA clone (Cat# RC207233) using MegaTran 2.0 (Cat# [TT210002]).