

## Product datasheet for **RC230318**

### DMT1 (SLC11A2) (NM\_001174125) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DMT1 (SLC11A2) (NM_001174125) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DMT1
Synonyms:	AHMIO1; DCT1; DMT1; NRAMP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC230318 representing NM\_001174125  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGGAAGAAGCAGCTGAAGACGGAGGCAGCTCCACACTGTGAACTAAAATCATATTCTAAGAAGCTCAG  
 CCACTCAGGTATCCACCATGGTCTGGTCTGAACAGAAGATGTCAGATGACAGTGTCTGGAGATCA  
 TGGGGAGTCTGCCAGTCTTGGTAACATCAACCCTGCCTATAGTAATCCCTCTCTTTCACAGTCCCCTGGG  
 GACTCAGAGGAGTACTTCGCCACTTACTTTAATGAGAAGATCTCCATTCTGAGGAGGAGTACTCTGT  
 TTAGCTTTTCGTAACCTCTGGGCTTTACCCGGACCAGGTTTTCTTATGAGCATTGCCTACCTGGATCCAGG  
 AAATATTGAATCCGATTTGCAGTCTGGAGCAGTGGCTGGATTTAAGTTGCTCTGGATCCTCTGTTGGCC  
 ACCCTTGTGGGGCTGCTGCTCCAGCGGCTTGCAGCTAGACTGGGAGTGGTACTGGGCTGCATCTTGCTG  
 AAGTATGTACCCTCAGTATCCCAAGTCCCACGAGTCATCCTGTGGCTGATGGTGGAGTGGCTATCAT  
 CGGCTCAGACATGCAAGAAGTCATTGGCTCAGCCATTGCTATCAATCTTCTGTCTGTAGGAAGAATTCCT  
 CTGTGGGGTGGCGTTCTCATCACCATTGCAGATACTTTTGTATTTCTCTTCTTGGACAAATATGGCTTGC  
 GGAAGCTAGAAGCATTTTTGGCTTTCTCATCACTATTATGGCCCTCACATTTGGATATGAGTATGTTAC  
 AGTGAAACCCAGCCAGAGCCAGGTAAGGCAAGGTCATGTTCCGATCCCTGTTCCAGGCTGTGCGACTCCA  
 CAGATTGAACAGGCTGTGGGCATCGTGGGAGCTGTCATCATGCCACACAACATGTACCTGCATTCTGCC  
 TAGTCAAGTCTAGACAGGTAACCCGGAACAATAAGCAGGAAGTTCGAGAAGCCAATAAGTACTTTTTTCAT  
 TGAATCCTGCATTGCCTCTTTGTTTCCCTTCATCATCAATGTCTTTGTTGCTCAGTCTTTGCTGAAGCA  
 TTTTTGGGAAAACCAACGAGCAGGTGGTTGAAGTCTGTACAAAACCAGCAGTCCATGCTGGCCTCT  
 TTCCTAAAGATAACTCGACACTGGCTGTGGACATCTACAAAGGGGGTGTGTGCTGGGATTTACTTTGG  
 GCCTGCTGCACTCTACATTTGGGAGTGGGGATCCTGGCTGCAGGACAGAGCTCCACCATGACAGGAACC  
 TATTCTGGCCAGTTTGTCTATGGAGGATTCTGAACCTAAAGTGGTACGCTTTGCCGAGTGGTCTGA  
 CTCGCTCTATTGCCATCATCCCCACTCTGCTTGTGCTGTCTTCCAAGATGTAGAGCATCTAACAGGGAT  
 GAATGACTTTCTGAATGTTCTACAGAGCTTACAGCTTCCCTTTGCTCTCATACCCATCCTCACATTTACG  
 AGCTTGCAGCCAGTAATGAGTACTTTGCCAATGGACTAGGCTGGCGGATTGCAGGAGGAATCTTGGTCC  
 TTATCATCTGTTCCATCAATATGACTTTGTAGTGGTTTATGTCCGGGACCTAGGCATGTGGCATTATA  
 TGTGGTGGCTGCTGTGGTCAAGTGGCTTATCTGGGCTTTGTGTTCTACTTGGGTGGCAATGTTTGATT  
 GCACTGGGCATGCTCTTCTGGACTGTGGGCATACGGTAAGCATCTCTAAAGCCTGCTGACAGAAGAAG  
 CCACCCGTGGCTACGTTAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC230318 representing NM\_001174125  
 Red=Cloning site Green=Tags(s)

MRKKQLKTEAAPHCELKSYSKNSATQVSTMVLGPEQKMSDDSVSGDHGESASLGNINPAYSNPSLSQSPG  
 DSEEFATYFNEKISIPSEEEYSCFSFRKLWAFSTGPGFLMSIAYLDPGNIESDLQSGAVAGFKLLWILLLA  
 TLVGLLLQRLAARLGVVTLHLAEVCHRQYPKVPRVILWLMVELAIIIGSDMQEVIQSAIAINLLSVGRIP  
 LWGGVLIITADTFVFLFLDKYGLRKLKLEAFFGFLITIMALTFGYEYVTVKPSQVQLKGMFVPSGCRTP  
 QIEQAVGIVGAVIMPHNMYLHLSALVKSQVNRNKKQEVREANKYFFIESCIALFVSFIINVFVSVFAEA  
 FFGKTNEQVVEVCTNTSSPHAGLFPKDNSTLAVDIYKGGVVLGCYFGPAALYIWAAGVILAAAGSSTMTGT  
 YSGQFVMEGFLNLKWSRFARVVLTRSIATIPLLVAVFQDVEHLTGMNDFLNLVQLQLPFALIPILFTT  
 SLRPVMSDFANLWRIAGGILVLIICSINMYFVVVVYRDLGHVALYVVAVVSVAYLGFVYFLGWQCLI  
 ALGMSFLDCGHTVVISKGLLTEEATRGYVK

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8068\\_f11.zip](https://cdn.origene.com/chromatograms/mk8068_f11.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001174125

**ORF Size:** 1770 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_001174125.2](#)

**RefSeq ORF:** 1773 bp

**Locus ID:** 4891

**UniProt ID:** [P49281](#)

**Cytogenetics:** 12q13.12

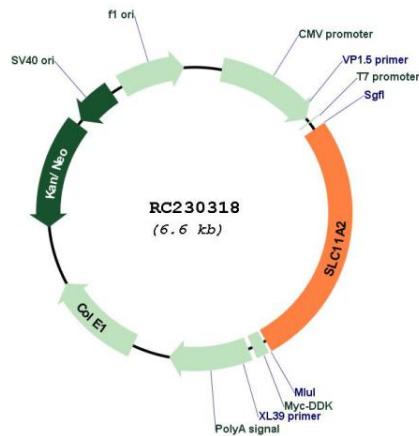
**Protein Families:** Transmembrane

**Protein Pathways:** Lysosome

**MW:** 65.2 kDa

**Gene Summary:** This gene encodes a member of the solute carrier family 11 protein family. The product of this gene transports divalent metals and is involved in iron absorption. Mutations in this gene are associated with hypochromic microcytic anemia with iron overload. A related solute carrier family 11 protein gene is located on chromosome 2. Multiple transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Apr 2010]

### Product images:



Circular map for RC230318