

## Product datasheet for **RC210568**

### DMT1 (SLC11A2) (NM\_000617) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DMT1 (SLC11A2) (NM_000617) 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)



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**ORF Nucleotide Sequence:**

>RC210568 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGTCTGGGTCTGAACAGAAGATGTCAGATGACAGTGTCTGGAGATCATGGGGAGTCTGCCAGTC  
 TTGGTAACATCAACCCTGCCTATAGTAATCCCTCTCTTTCACAGTCCCCTGGGGACTCAGAGGAGTACTT  
 CGCCACTTACTTTAATGAGAAGATCTCCATTCTGAGGAGGAGTACTCTTGTCTTTCGTAAGTCTGTA  
 TGGGCTTTCACCGGACCAGGTTTTCTTATGAGCATTGCCTACCTGGATCCAGGAAATATTGAATCCGATT  
 TGCAGTCTGGAGCAGTGGCTGGATTTAAGTTGCTCTGGATCCTTCTGTTGGCCACCCTTGTGGGGCTGCT  
 GCTCAAGCGGCTTGCAGCTAGACTGGGAGTGGTACTGGGCTGCATCTTGTGAAGTATGTCACCGTCAG  
 TATCCCAAGTCCACGAGTCATCCTGTGGCTGATGGTGGAGTTGGCTATCATCGGCTCAGACATGCAAG  
 AAGTCATTGGCTCAGCCATTGCTATCAATCTTCTGTCTGTAGGAAGAATTCCTCTGTGGGGTGGCGTTCT  
 CATCACCATTGCAGATACTTTTGTATTTCTCTTCTGGACAAATATGGCTTGCAGGAGCTAGAAGCATT  
 TTTGGCTTCTCATCACTATTATGGCCCTCACATTTGGATATGAGTATGTTACAGTGAAACCCAGCCAGA  
 GCCAGGACTCAAGGGCATGTTCTGACCATCTGTTCCAGGCTGTCGCACTCCACAGATTGAACAGGCTGT  
 GGGCATCGTGGGAGCTGTCATCATGCCACACAACATGTACCTGCATTCTGCCTTAGTCAAGTCTAGACAG  
 GTAACCCGGAACAATAAGCAGGAAGTTCGAGAAGCCAATAAGTACTTTTTTATTGAATCCTGCATTGCAC  
 TCTTTGTTTCTTTCATCATCAATGTCTTTGTTGTCTCAGTCTTTGCTGAAGCATTTTTTGGGAAAACCA  
 CGAGCAGTGGTTGAAGTCTGTACAAAACCAGCAGTCCCTCATGCTGGCCTTTTCTAAAGATAACTCG  
 ACACTGGCTGTGGACATCTACAAAGGGGTGTTGTGCTGGGATGTTACTTTGGGCCTGCTGCACCTACA  
 TTTGGGAGTGGGATCCTGGCTGCAGGACAGACTCCACCATGACAGGAACCTATTCTGGCCAGTTTGT  
 CATGGAGGGATTCTGAACCTAAAGTGGTCAAGCTTTGCCGAGTGGTCTGACTCGCTCTATTGCCATC  
 ATCCCCACTCTGCTTGTGCTGCTTCCAAGATGTAGAGCATCTAACAGGGATGAATGACTTTCTGAATG  
 TTCTACAGAGCTTACAGCTTCCCTTTGCTCTCATACCATCCTCACATTTACGAGCTTGGCGCCAGTAAT  
 GAGTGACTTTGCCAATGGACTAGGCTGGCGGATTGCAGGAGGAATCTTGGTCTTATCATCTGTTCCATC  
 AATATGTACTTTGTAGTGGTTTATGTCCGGACCTAGGGCATGTGGCATTATATGTTGGTGGCTGCTGTGG  
 TCAGCGTGGCTTATCTGGGCTTTGTGTTCTACTGGGTTGGCAATGTTTGATTGCACTGGGCATGCTCTT  
 CCTGGACTGTGGGCATACGGTAAGCATCTAAAGGCCTGCTGACAGAAGAAGCCACCCGTGGCTACGTT  
 AAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC210568 protein sequence  
 Red=Cloning site Green=Tags(s)

MVLGPEQKMSDDSVSGDHGESASLGNINPAYSNPSSLQSPGDSEEYFATYFNEKISIPPEEYSCFSFRKL  
 WAFTGPGFLMSIAYLDPGNIESDLQSGAVAGFKLLWILLLATLVGLLLKRLAARLGVVTGLHLAEVCHRQ  
 YPKVPRVILWMLVELAIIIGSDMQEVIIGSAIAINLLSVGRIPWGGVLIITADTFVFLFDKYGLRKLKLEAF  
 FGFLITIMALTFGYEYVTVKPSQSQVLKGMFVPSGCRTPQIEQAVGIVGAVIMPHNMYLHLSALVKSQRQ  
 VNRNNKQEVREANKYFFIESCIALFVSFIINVFVVSVAEAFVFGKTNEQVVEVCTNTSSPHAGLFPKDNS  
 TLAVDIYKGGVVLGCYFGPAALYIWAAGVILAAGQSSTMTGTYSQGFVMEGFLNLKWSRFARVVLTRSLAI  
 IPTLLVAVFQDVEHLTGMNDFLNVLQSLQLPFALIPILFTSLRPVMSDFANGLGWRIAGGILVLIICSI  
 NMYFVVVYVRDLGHVALYVVAVVSVAYLGFVFLGWQCLIALGMSFLDCGHTVSIKGLLTEEATRGYV  
 K

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6380\\_f07.zip](https://cdn.origene.com/chromatograms/mk6380_f07.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_000617

**ORF Size:** 1683 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\\_000617.3](#)

**RefSeq Size:** 4164 bp

**RefSeq ORF:** 1686 bp

**Locus ID:** 4891

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

**Cytogenetics:** 12q13.12

**Domains:** Nramp

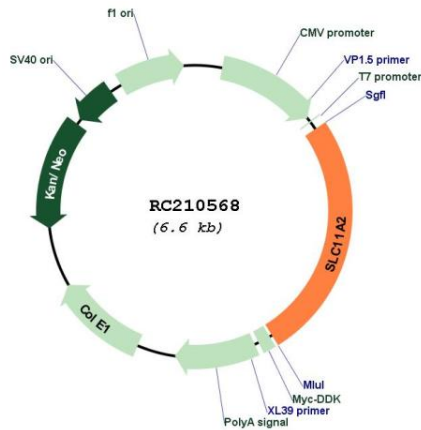
**Protein Families:** Transmembrane

**Protein Pathways:** Lysosome

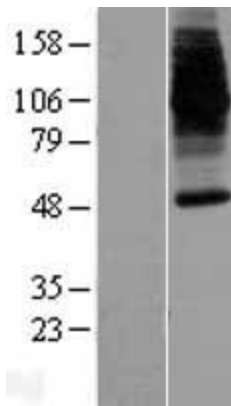
**MW:** 61.5 kDa

**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 RC210568



Western blot validation of overexpression lysate (Cat# [LY424604]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210568 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).