

## Product datasheet for **RG210568**

### 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:	TurboGFP
Symbol:	DMT1
Synonyms:	AHMIO1; DCT1; DMT1; NRAMP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG210568 representing NM\_000617  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGTCTGGTCTGAACAGAAGATGTCAGATGACAGTGTCTGGAGATCATGGGAGTCTGCCAGTC  
 TTGGTAACATCAACCCTGCCTATAGTAATCCCTCTCTTTCACAGTCCCCTGGGACTCAGAGGAGTACTT  
 CGCCACTTACTTTAATGAGAAGATCTCCATTCTGAGGAGGAGTACTCTTGTCTTTCGTAAGTCT  
 TGGGCTTTCACCGGACCAGGTTTTCTTATGAGCATTGCCTACCTGGATCCAGGAAATATTGAATCCGATT  
 TGCAGTCTGGAGCAGTGGCTGGATTTAAGTTGCTCTGGATCCTTCTGTTGGCCACCCTTGTGGGCTGCT  
 GCTCAAGCGGCTGCAGCTAGACTGGGAGTGGTACTGGGCTGCATCTTGTGAAGTATGCACCGTCAG  
 TATCCCAAGTCCACGAGTCATCCTGTGGCTGATGGTGGAGTTGGCTATCATCGGCTCAGACATGCAAG  
 AAGTCATTGGCTCAGCCATTGCTATCAATCTTCTGTCTGTAGGAAGAATTCCTCTGTGGGTGGCGTTCT  
 CATCACCATTGCAGATACTTTTGTATTTCTTCTTGGACAAATATGGCTTGCAGGAGCTAGAAGCATT  
 TTTGGCTTCTCATCACTATTATGGCCCTCACATTTGGATATGAGTATGTTACAGTGAAACCCAGCCAGA  
 GCCAGGACTCAAGGCATGTTCTGACCATCTGTTCCAGGCTGTCGCACTCCACAGATTGAACAGGCTGT  
 GGGCATCGTGGGAGCTGTATCATGCCACACAACATGTACCTGCATTCTGCCTTAGTCAAGTCTAGACAG  
 GTAACCCGGAACAATAAGCAGGAAGTTCGAGAAGCCAATAAGTACTTTTTTATTGAATCTGCATTGCAC  
 TCTTTGTTTCTTATCATCAATGTCTTTGTTGTCTCAGTCTTTGCTGAAGCATTTTTTGGGAAAACCAA  
 CGAGCAGTGGTGAAGTCTGTACAAAACCAGCAGTCCATGCTGGCCTTTTCTAAAGATAACTCG  
 ACATGGCTGTGGACATCTACAAAGGGGTGTTGTGCTGGGATGTTACTTTGGCCTGCTGCACTTACA  
 TTTGGGAGTGGGATCCTGGCTGCAGGACAGACTCCACCATGACAGGAACCTATTCTGGCCAGTTTGT  
 CATGGAGGGATTCTGAACCTAAAGTGGTCAAGCTTTGCCCGAGTGGTCTGACTCGCTCTATTGCCATC  
 ATCCCCACTCTGCTTGTGCTGCTTCCAAGATGTAGAGCATCTAACAGGGATGAATGACTTTCTGAATG  
 TTCTACAGAGCTTACAGCTTCCCTTTGCTCTCATACCATCCTCACATTTACGAGCTTGGCGCCAGTAAT  
 GAGTGACTTTGCCAATGGACTAGGCTGGCGGATTGCAGGAGGAATCTTGGTCTTATCATCTGTTCCATC  
 AATATGTACTTTGTAGTGGTTTATGTCCGGACCTAGGGCATGTGGCATTATATGTTGGTGGCTGCTG  
 TCAGCGTGGCTTATCTGGGCTTTGTGTTCTACTGGGTTGGCAATGTTTGATTGCACTGGGCATGCTCT  
 CCTGGACTGTGGCATAACGTAAGCATCTAAAGGCCTGCTGACAGAAGAAGCCACCCGTGGCTACGTT  
 AAA

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG210568 representing NM\_000617  
 Red=Cloning site Green=Tags(s)

MVLGPEQKMSDDSVSGDHGESASLGNINPAYSNPSSLQSPGDSEEFATYFNEKISIPPEEYSCFSFRKL  
 WAFTGPGFLMSIAYLDPGNIESDLQSGAVAGFKLLWILLLATLVGLLLKRLAARLGVVTLHLAEVCHRQ  
 YPKVPRVILWLMVELAIIGSDMQEVIQSAIAINLLSVGRIPWGGVLIITADTFVFLFDKYGLRLEAF  
 FGFLITIMALTFGYEYVTKPSQSQVLKGMFVPSVCSGCRTPQIEQAVGIVGAVIMPHNMYLHSAVKSRQ  
 VNRNKNQEVREANKYFFIESCIALFVSFIINVFVVSVFAEAFGKTNEQVVEVCTNTSSPHAGLFPKDNS  
 TLAVDIYKGGVVLGCYFGPAALYIWAAGVILAAGQSTMTGTYSQGFVMEGFLNLKWSRFARVVLTRIAI  
 IPTLLVAVFQDVEHLTGMNDFLNLQSLQLPFALIPILTFTSLRPVMSDFANGLGWRIAGGILVLIICSI  
 NMYFVVVYVRDLGHVALYVVAVVSVAYLGFVYLGWQCLIALGMSFLDCGHTVVISKGLLTEEATRGYV  
 K

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**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\\_000617.1](#), [NP\\_000608.1](#)

**RefSeq Size:** 4103 bp

**RefSeq ORF:** 1686 bp

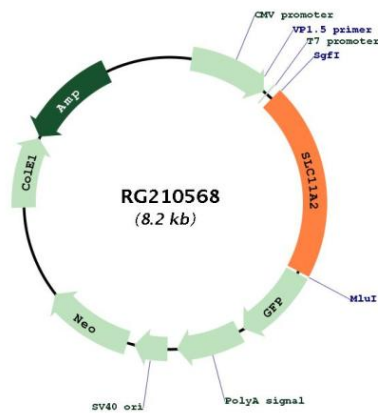
**Locus ID:** 4891

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

**Cytogenetics:** 12q13.12

**Domains:** Nramp  
**Protein Families:** Transmembrane  
**Protein Pathways:** Lysosome  
**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 RG210568