

## Product datasheet for **RC230278**

### DMT1 (SLC11A2) (NM\_001174129) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DMT1 (SLC11A2) (NM_001174129) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SLC11A2
Synonyms:	AHMIO1; DCT1; DMT1; NRAMP2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RC230278 representing NM\_001174129  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGTCTGGGCTCTGAACAGAAGATGTCAGATGACAGTGTCTGGAGATCATGGGGAGTCTGCCAGTC  
 TTGGTAACATCAACCCTGCCTATAGTAATCCCTCTCTTTCACAGTCCCCTGGGGACTCAGAGGAGTACTT  
 CGCCACTTACTTTAATGAGAAGATCTCCATTCTGAGGAGGAGTACTCTTGTCTTTCGTAAGTCT  
 TGGGCTTTCACCGGACCAGGTTTTCTTATGAGCATTGCCTACCTGGATCCAGGAAATATTGAATCCGATT  
 TGCAGTCTGGAGCAGTGGCTGGATTTAAGTTGCTCTGGATCCTTCTGTTGGCCACCCTTGTGGGGCTGCT  
 GCTCAAGCGGCTTGCAGCTAGACTGGGAGTGGTACTGGGCTGCATCTTGTGAAGTATGCACCGTCAG  
 TATCCCAAGTCCACGAGTCATCCTGTGGCTGATGGTGGAGTTGGCTATCATCGGCTCAGACATGCAAG  
 AAGTCATTGGCTCAGCCATTGCTATCAATCTTCTGTCTGTAGGAAGAATTCCTCTGTGGGGTGGCGTTCT  
 CATCACCATTGCAGATACTTTTGTATTTCTCTTCTGGACAAATATGGCTTGCAGGAGCTAGAAGCATT  
 TTTGGCTTCTCATCACTATTATGGCCCTCACATTTGGATATGAGTATGTTACAGTGAAACCCAGCCAGA  
 GCCAGGACTCAAGGGCATGTTCTGACCATCTGTTCCAGGCTGTCGCACTCCACAGATTGAACAGGCTGT  
 GGGCATCGTGGGAGCTGTATCATGCCACACAACATGTACCTGCATTCTGCCTTAGTCAAGTCTAGACAG  
 GTAACCCGGAACAATAAGCAGGAAGTTCGAGAAGCCAATAAGTACTTTTTTATTGAATCTGCATTGCAC  
 TCTTTGTTTCTTTCATCATCAATGTCTTTGTTGTCTCAGTCTTTGCTGAAGCATTTTTTGGGAAAACCA  
 CGAGCAGTGGTGAAGTCTGTACAAAACCAGCAGTCTCATGCTGGCCTTTTCTAAAGATAACTCG  
 ACACCTGGCTGTGGACATCTACAAAGGGGTGTTGTGCTGGGATGTTACTTTGGCCTGCTGCACCTACA  
 TTTGGGAGTGGGATCCTGGCTGCAGGACAGACTCCACCATGACAGGAACCTATTCTGGCCAGTTTGT  
 CATGGAGGGATTCTGAACCTAAAGTGGTCACGCTTTGCCCGAGTGGTCTGACTCGCTCTATTGCCATC  
 ATCCCCACTCTGCTTGTGCTGTCTTCCAAGATGTAGAGCATCTAACAGGGATGAATGACTTTCTGAATG  
 TTCTACAGAGCTTACAGCTTCCCTTTGCTCTCATACCATCCTCACATTTACGAGCTTGGCGCCAGTAAT  
 GAGTGACTTTGCCAATGGACTAGGCTGGCGGATTGCAGGAGGAATCTTGGTCTTATCATCTGTTCCATC  
 AATATGTACTTTGTAGTGGTTTATGTCCGGACCTAGGGCATGTGGCATTATATGTTGGTGGCTGCTGGG  
 TCAGCGTGGCTTATCTGGGCTTTGTGTTCTACTGGGTTGGCAATGTTTGATTGCACTGGGCATGCCTT  
 CCTGGACTGTGGGCATACGGTAAGCATCTAAAGGCCTGCTGACAGAAGAAGCCACCCGTGGCTACGTT  
 AAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC230278 representing NM\_001174129  
 Red=Cloning site Green=Tags(s)

MVLGPEQKMSDDSVSGDHGESASLGNINPAYSNPSSLQSPGDSEEYFATYFNEKISIPPEEYSCFSFRKL  
 WAFITGPGFLMSIAYLDPGNIESDLQSGAVAGFKLLWILLLATLVGLLLKRLAARLGVVTLHLAEVCHRQ  
 YPKVPRVILWLMVELAIIGSDMQEVIQSAIAINLLSVGRIPLWGGVLIITADTFVFLFDKYGLRKLKLEAF  
 FGFLLITIMALTFGYEYTVKPSQSQVLKGMFVPCSGCRTPQIEQAVGIVGAVIMPHNMYLHLSALVKSRQ  
 VNRNKKQEVREANKYFFIESCIALFVSFIINVFVSVFAEAFGKTNEQVVEVCTNTSSPHAGLFPKDNS  
 TLAVDIYKGGVVLGCYFGPAALYIWAAGVILAAGQSSMTGTYSQGFVMEGFLNLKWSRFARVVLTRSI  
 IPTLLVAVFQDVEHLTGMNDFLNLQSLQLPFALIPILTFTSLRPVMSDFANGLGWRIAGGILVLIICSI  
 NMYFVVVVYRDLGHVALYVVAVVSVAYLGFVYLVGWQCLIALGMSFLDCGHTVVISKGLLTEEATRGYV  
 K

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

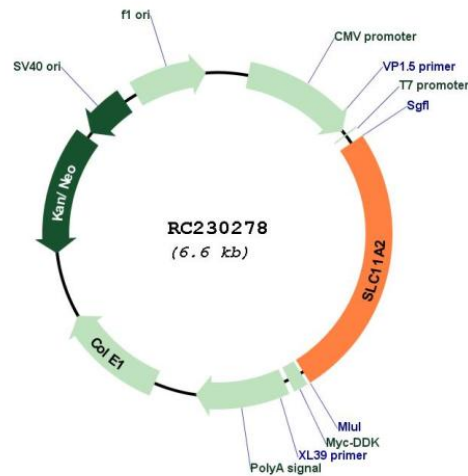
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001174129  
 ORF Size: 1683 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001174129.1</a> , <a href="#">NP_001167600.1</a>
<b>RefSeq ORF:</b>	1686 bp
<b>Locus ID:</b>	4891
<b>UniProt ID:</b>	<a href="#">P49281</a>
<b>Cytogenetics:</b>	12q13.12
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Lysosome
<b>MW:</b>	61.9 kDa
<b>Gene Summary:</b>	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]