

## Product datasheet for **SC119791**

### DMT1 (SLC11A2) (NM\_000617) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DMT1 (SLC11A2) (NM_000617) Human Untagged Clone
Tag:	Tag Free
Symbol:	DMT1
Synonyms:	AHMIO1; DCT1; DMT1; NRAMP2
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC119791 sequence for NM\_000617 edited (data generated by NextGen Sequencing)

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ATGGTGCCTGGTCTGAACAGAAGATGTCAGATGACAGTGTCTGGAGATCATGGGGAG
TCTGCCAGTCTTGGTAACATCAACCCTGCCTATAGTAATCCCTCTCTTTCACAGTCCCCT
GGGGACTCAGAGGAGTACTTCGCCACTTACTTTAATGAGAAGATCTCCATTCCTGAGGAG
GAGTACTCTTGTGTTTAGCTTTCGTAAACTCTGGGCTTTCACCGGACCAGGTTTTCTTATG
AGCATTGCCTACCTGGATCCAGGAAATATTGAATCCGATTTGCAGTCTGGAGCAGTGGCT
GGATTTAAGTTGCTCTGGATCCTTCTGTTGGCCACCCTTGTGGGCTGCTGCTCCAGCGG
CTTGACAGCTAGACTGGGAGTGGTACTGGGCTGCATCTTGTGAAGTATGTCACCGTCAG
TATCCCAAGGTCCCACGAGTCATCCTGTGGCTGATGGTGGAGTTGGCTATCATCGGCTCA
GACATGCAAGAAGTCAATTGGCTCAGCCATTGCTATCAATCTTCTGTCTGTAGGAAGAATT
CCTCTGTGGGGTGGCGTCTCATCACCATTGCAGATACTTTTGTATTTCTCTTCTTGGAC
AAATATGGCTTGCNGAAGCTAGAAGCATTTTTGGCTTCTCATCACTATTATGGCCCTC
ACATTTGGATATGAGTATGTTACAGTCAAACCCAGCCAGCCAGGACTCAAGGGCATG
TTCGTACCATCCTGTTCCAGGCTGTCGCACTCCACAGATTGAACAGGCTGTGGGCATCGTG
GGAGCTGTCATCATGCCACACAACATGTACCTGCATTCTGCCTTGTCAAGTCTAGACAG
GTAAACCGGAACAATAAGCAGGAAGTTCGAGAAGCCAATAAGTACTTTTTTATTGAATCC
TGCATTGCACTCTTGTCTTCTCATCAATGTCTTGTGTCTCAGTCTTGTGCTGAA
GCATTTTTTGGGAAAACCAACGAGCAGGTGGTGAAGTCTGTACAATAACAGCAGTCTCT
CATGCTGGCCTCTTCTAAAGATAACTCGACTGGCTGTGGACATCTACAAAGGGGT
GTTGTGCTGGGATGTTACTTTGGCCTGCTGCACTCTACATTTGGCAGTGGGGATCCTG
GCTGCAGGACAGAGCTCCACCATGACAGGAACCTATTCTGGCCAGTTTGTATGGAGGA
TTCTGAACTAAAGTGGTCAAGCTTTGCCGAGTGGTCTGACTCGCTCTATTGCCATC
ATCCCCACTCTGCTTGTGCTGCTTCCAAGATGTAGAGCATCTAACAGGGATGAATGAC
TTTCTGAATGTTTACAGAGCTTACAGCTTCCCTTGTCTCATACCCATCCTCACATTT
ACGAGCTTGCNGCAGTAATGAGTACTTTGCCAATGGACTAGGCTGGCGGATTGCAGGA
GGAATCTTGGTCTTATCATCTGTTCCATCAATATGACTTTGTAGTGGTTTATGTCCGG
GACCTAGGGCATGTGGCATTATATGTGGTGGCTGCTGTGGTCAAGGCTTATCTGGGC
TTTGTGTTCTACTTGGTTGGCAATGTTTGTGACTGGGCATGTCCTTCTGGACTGT
GGGCATACGGTAAGCATCTCTAAAGGCCTGCTGACAGAAGAAGCCACCCGTGGCTACGTT
AAATAA
    
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Clone variation with respect to NM\_000617.2

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_000617 unedited

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TAGACGCTCTGGGATATTTGTAATCCGNACTTCTACTATAGGGCGGCACGGCAATTCG
GCACGAGGGCGGAGCTGGTAAGAATCATATTCTAAGAACTCAGCCACTCAGGTATCCACC
ATGGTGCCTGGTCTGAACAGAAGATGTCAGATGACAGTGTCTGGAGATCATGGGGAG
TCTGCCAGTCTTGGTAACATCAACCCTGCCTATAGTAATCCCTCTCTTTCACAGTCCCCT
GGGGACTCAGAGGAGTACTTCGCCACTTACTTTAATGAGAAGATCTCCATTCCTGAGGAG
GAGTACTCTTGTGTTTAGCTTTCGTAAACTCTGGGCTTTCACCGGACCAGGTTTTCTTATG
AGCATTGCCTACCTGGATCCAGGAAATATTGAATCCGATTTGCAGTCTGGAGCAGTGGCT
GGATTTAAGTTGCTCTGGATCCTTCTGTTGGCCACCCTTGTGGGCTGCTGCTCCAGCGG
CTTGACAGCTAGACTGGGAGTGGTACTGGGCTGCATCTTGTGAAGTATGTCACCGTCAG
TATCCCAAGGTCCCACGAGTCATCCTGTGGCTGATGGTGGAGTTGGCTATCATCGGCTCA
GACATGCAAGAAGTCAATTGGCTCAGCCATTGCTATCAATCTTCTGTCTGTAGGAAGAATT
CCTCTGTGGGGTGGCGTCTCATCACCATTGCAGATACTTTTGTATTTCTCTTCTTGGAC
AAATATGGCTTGCNGAAGCTAGAAGCATTTTTGGGCTTCTCATCACTATTATGGCCCTC
ACATTTGGATATGAGTATNGTACAGTCAAACCCAGCCAGCCAGGACTCAAGGGCATG
TTCGTACCATNCCTGTCAAGGCTGTCGCACTCACAAAATGAACAAGCTGGGGGCATCGTG
GGAGCTGGCATCATGCCACACATGTACC
    
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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_000617 unedited ACCGCGGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGAAAAAGAA ATTTTTTTTTTAATTAACCAAGTTTACATACGGGTAATGGGTAATAAAGCTCAGTT GTAACCACTCCTAACCACTAGCAAAACCTCAAGGGAGCCAAGAGCTCTTCCCTTTTCC CCTGTTAATTTCCAGTATAATGTAGCAGCACAATTATTTTCATGTCACATTTAAAAAGAAC AAGAACCAATTTATATAAAGTACAATTGTATATCCTTAAACATTCCACATAAACACACTG TCAAACTCACTGGATATGCTGGAAATGGAGGACTTAAATTTCTACATATTATTTATTGC ACCCAGAGTACTGGTAAAATGCACCTTTCTGTGAAGATCAAATGCAATAACGTATGAGGG TATTTTTAACACTGTGAAGTACACACATAATATTATAAAATGCCATTTAATTGGAAGGAG TTTTCTATCATTGCAAGTCATAAATGTAACCTTTAAAAGAATACTAGCAGCTTTTACCTA GGCTCCTAAATGCTTGTAAATCTGAGACTGACTGGACCCACCCAGACCCAGGGCAAAGAT ACATGTTACCATATCATCTTTATAAAGAATTTTTTTTTTTGTCGTCAGTTTGGCCTTTCT ACTGCAGCCAGGTGAGAGCTTAAGATGTCAGTCCCAATATCTTCACAGAGTGCCTTTAT GACCAGTTGGAGAATTACGNATGGTAGGGGAAGAAGCANATATGAAAAGGGATGGTTAN GGGAATNGTCATTCATAACTCTGTGCTATATTACTTGAGGGGCTAAGAAAAATGTATGG GCAGTGAACACAGTANTGTACCCTTAAATGCCTATAAAGACCATCATNCAGTCTGCGCTT TGACTGGGTGCAGTATCANTATAATGCTTTTGGGGCTCAAAA
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_000617
<b>Insert Size:</b>	4100 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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>	<u><a href="#">NM_000617.1</a></u> , <u><a href="#">NP_000608.1</a></u>
<b>RefSeq Size:</b>	4103 bp
<b>RefSeq ORF:</b>	1686 bp
<b>Locus ID:</b>	4891
<b>UniProt ID:</b>	<u><a href="#">P49281</a></u>
<b>Cytogenetics:</b>	12q13.12
<b>Domains:</b>	Nramp
<b>Protein Families:</b>	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]  
Transcript Variant: This variant (4) differs in the 5' UTR and 5' coding region compared to variant 1. The resulting protein (isoform 3) has a shorter and distinct N-terminus compared to isoform 1. Variants 4, 5 and 6 encode isoform 3.