

Product datasheet for **RC230268**

DMT1 (SLC11A2) (NM_001174130) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DMT1 (SLC11A2) (NM_001174130) 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:

>RC230268 representing NM_001174130
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCCACGGTCGATTATTTGAACAGTGTTCCTGGAGATCATGGGGAGTCTGCCAGTCTTGTAACATCA
 ACCCTGCCTATAGTAATCCCTCTCTTTACAGTCCCCTGGGACTCAGAGGAGTACTTCGCCACTTACTT
 TAATGAGAAGATCTCCATTCTGAGGAGGAGTACTCTTGTCTTTAGCTTCGTAAACTCTGGGCTTTCACC
 GGACCAGGTTTTCTATGAGCATTGCCTACCTGGATCCAGGAAATATTGAATCCGATTTGCAGTCTGGAG
 CAGTGGCTGGATTTAAGTTGCTCTGGATCCTTCTGTTGGCCACCCTTGTGGGCTGCTGCTCCAGCGGT
 TGCAGCTAGACTGGGAGTGGTACTGGCTGCATCTTGTGAAGTATGTCACCGTCAGTATCCCAAGGTC
 CCACGAGTCATCTGTGGCTGATGGTGGAGTTGGCTATCATCGGCTCAGACATGCAAGAAGTCATTGGCT
 CAGCCATTGCTATCAATCTTCTGTCTGTAGGAAGAATTCCTCTGTGGGTGGCTTCTCATCACCATTGC
 AGATACTTTTGTATTTCTTCTTTGGACAAATATGGCTTGGGAAAGCTAGAAGCATTTTTGGCTTCTC
 ATCACTATTATGGCCCTCACATTTGGATATGAGTATGTTACAGTAAACCCAGCCAGAGCCAGGACTCA
 AGGGCATGTTCTGACCATCCTGTTCAAGGCTGTCGCACTCCACAGATTGAACAGGCTGTGGGCATCGTGGG
 AGCTGTATCATGCCACACAACATGTACCTGCATTCTGCCTTAGTCAAGTCTAGACAGGTAACCCGGAAC
 AATAAGCAGGAAGTTCGAGAAGCCAATAAGTACTTTTTTCATTGAATCCTGCATTGCACTCTTTGTTTCT
 TCATCATCAATGTCTTTGTTGCTCAGTCTTGTGAAGCATTTTTGGGAAAACCAACGAGCAGGTGGT
 TGAAGTCTGTACAAATACCAGCAGTCCATGCTGGCCTTTTCTAAAGATAACTCGACTGGCTGTG
 GACATCTACAAAGGGGTGTTGTCTGGGATGTTACTTTGGCCCTGCTGCACTCTACATTTGGGAGGATG
 GGATCCTGGCTGCAGGACAGAGCTCCACCATGACAGGAACCTATCTGGCCAGTTGTCTGAGGAGGATG
 CCTGAACCTAAAGTGGTACGCTTTGCCGAGTGGTCTGACTCGCTCTATTGCCATCATCCCCACTCTG
 CTTGTTGCTGCTTCCAAGATGTAGAGCATCTAACAGGGATGAATGACTTCTGAATGTTCTACAGAGCT
 TACAGCTTCCCTTGTCTCATACCCATCCTCACATTTACGAGCTTGGCGCCAGTAATGAGTACTTTGC
 CAATGGACTAGGCTGGCGGATTGACAGGAGGAATCTTGGTCTTATCATCTGTTCCATCAATATGACTTT
 GTAGTGGTTTATGTCCGGACCTAGGGCATGTGCATTATATGGTGGCTGCTGTGGTCAAGCTGGCTT
 ATCTGGGCTTGTGTTCTACTTGGGTTGGCAATGTTTGATTGCACTGGGCATGCTCTTCTGGACTGTGG
 GCATACGGTAAGCATCTCTAAAGGCTGCTGACAGAAGAAGCCACCCGTGGCTACGTTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC230268 representing NM_001174130
 Red=Cloning site Green=Tags(s)

MSTVDYLNSVSGDHGESASLGNINPAYSNPSLSQSPGDSEEFATYFNEKISIPPEEYSCFSFRKLWAF
 GPGFLMSIAYLDPGNIESDLQSGAVAGFKLLWILLATLVGLLLQRLAARLGVVTGLHLAEVCHRQYPKV
 PRVILWLMVELAIIIGSDMQEVIIGSAIAINLLSVGRIPWGGVLIITADTFVFLFDKYGLRLEAFFGFL
 ITIMALTFGYEYVTKPSQSQVLKGMFVPSGCRTPQIEQAVGIVGAVIMPHNMYLHLSALVKSQVNRN
 NKQEVREANKYFFIESCIALFVSFIINVFVSVFAEAFGKTNEQVVEVCTNTSSPHAGLFPKDNSTLAV
 DIYKGGVVLGCYFGPAALYIWAAGVILAAQSSMTGTYSQGFVMEGFLNLKWSRFARVVLTRISAIIPTL
 LVAVFQDVEHLTGMNDFLNLQSLQLPFALIPILFTSLRPVMSDFANGLGWRIAGGILVLIICSINMYF
 VVVYVRDLGHVALYVVAVVSVAYLGFVYLGWQCLIALGMSFLDCGHTVSIKGLLTEEATRGYVK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8067_b09.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001174130

ORF Size: 1671 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001174130.2](#)

RefSeq ORF: 1674 bp

Locus ID: 4891

UniProt ID: [P49281](#)

Cytogenetics: 12q13.12

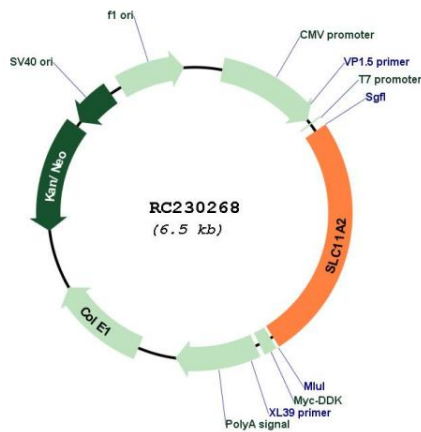
Protein Families: Transmembrane

Protein Pathways: Lysosome

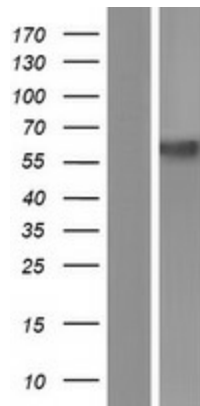
MW: 61.5 kDa

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 RC230268



Western blot validation of overexpression lysate (Cat# [LY433268]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC230268 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).