

Product datasheet for **RG230318**

DMT1 (SLC11A2) (NM_001174125) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DMT1 (SLC11A2) (NM_001174125) 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:

>RG230318 representing NM_001174125
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGGAAGAAGCAGCTGAAGACGGAGGCAGCTCCACACTGTGAACTAAAATCATATTCTAAGAAGCTCAG
 CCACTCAGGTATCCACCATGGTCTGGGTCTGAACAGAAGATGTCAGATGACAGTGTCTGGAGATCA
 TGGGGAGTCTGCCAGTCTTGGTAACATCAACCCTGCCTATAGTAATCCCTCTCTTTCACAGTCCCCTGGG
 GACTCAGAGGAGTACTTCGCCACTTACTTTAATGAGAAGATCTCCATTCTGAGGAGGAGTACTCTGT
 TTAGCTTTTCGTAACCTCTGGGCTTTACCCGGACCAGGTTTTCTTATGAGCATTGCCTACCTGGATCCAGG
 AAATATTGAATCCGATTTGCAGTCTGGAGCAGTGGCTGGATTTAAGTTGCTCTGGATCCTCTGTTGGCC
 ACCCTTGTGGGGCTGCTGCTCCAGCGGCTTGCAGCTAGACTGGGAGTGGTTACTGGGCTGCATCTTGCTG
 AAGTATGTACCCTCAGTATCCCAAGTCCCACGAGTCATCCTGTGGCTGATGGTGGAGTGGCTATCAT
 CGGCTCAGACATGCAAGAAGTCATTGGCTCAGCCATTGCTATCAATCTTCTGTCTGTAGGAAGAATTCCT
 CTGTGGGGTGGCGTTCTCATCACCATTGCAGATACTTTTGTATTTCTCTTCTGGACAAATATGGCTTGC
 GGAAGCTAGAAGCATTTTTGGCTTTCTCATCACTATTATGGCCCTCACATTTGGATATGAGTATGTTAC
 AGTGAAACCCAGCCAGAGCCAGGTAAGGAGGATGTTTCGTAACCATCCTGTTACAGGCTGTGCGACTCCA
 CAGATTGAACAGGCTGTGGGCATCGTGGGAGCTGTCATCATGCCACACAACATGTACCTGCATTCTGCCCT
 TAGTCAAGTCTAGACAGGTAACCCGGAACAATAAGCAGGAAGTTCGAGAAGCCAATAAGTACTTTTTTCAT
 TGAATCCTGCATTGCACCTTTTGTTCCTTCATCATCAATGTCTTTGTTGCTCAGTCTTTGCTGAAGCA
 TTTTTGGGAAAACCAACGAGCAGGTGGTTGAAGTCTGTACAAAACCAGCAGTCTCATGCTGGCCTCT
 TTCCTAAAGATAACTCGACACTGGCTGTGGACATCTACAAAGGGGGTGTGTGCTGGGATTTACTTTGG
 GCCTGTGCACTCTACATTTGGGCAGTGGGATCCTGGCTGCAGGACAGAGCTCCACCATGACAGGAACC
 TATTCTGGCCAGTTTGTATGGAGGATTCTGAACCTAAAGTGGTACGCTTTGCCGAGTGGTCTGA
 CTCGCTCTATTGCCATCATCCCCACTCTGCTTGTGCTGTCTTCCAAGATGTAGAGCATCTAACAGGGAT
 GAATGACTTTCTGAATGTTCTACAGAGCTTACAGCTTCCCTTTGCTCTCATACCCATCCTCACATTTACG
 AGCTTGCAGCCAGTAATGAGTACTTTGCCAATGGACTAGGCTGGCGGATTGCAGGAGGAATCTTGGTCC
 TTATCATCTGTTCCATCAATATGACTTTGTAGTGGTTTATGTCCGGGACCTAGGCATGTGGCATTATA
 TGTGGTGGCTGCTGTGGTCAAGCTGCTTATCTGGGCTTTGTGTTCTACTTGGGTGGCAATGTTTGATT
 GCACTGGGCATGCTCTTCTGGACTGTGGGCATACGGTAAGCATCTCTAAAGGCCTGCTGACAGAAGAAG
 CCACCCGTGGCTACGTTAAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG230318 representing NM_001174125
 Red=Cloning site Green=Tags(s)

MRKKQLKTEAAPHCELKSYSKNSATQVSTMVLGPEQKMSDDSVSGDHGESASLGNINPAYSNPSLSQSPG
 DSEEFATYFNEKISIPHEEYSCFSFRKLWAFSTGPGFLMSIAYLDPGNIESDLQSGAVAGFKLLWILLLA
 TLVGLLLQRLAARLGVVTGLHLAEVCHRQYPKVPRVILWLMVELAIIIGSDMQEVIQSAIAINLLSVGRIP
 LWGGVLIITADTFVFLFDKYGLRKLAEFFGLITIMALTFGYEYVTVKPSQVQLKGMFVPSGCRTP
 QIEQAVGIVGAVIMPHNMYLHSAVKSRQVNRNNKQEVREANKYFFIESCIALFVSFIINVFVSVFAEA
 FFGKTNEQVVEVCTNTSSPHAGLFPKDNSTLAVDIYKGGVVLGCYFGPAALYIWAIVGILAAAGQSSTMTGT
 YSGQFVMEGFLNLKWSRFARVVLTRSAIIPITLLVAVFQDVEHLTGMNDFLNVLQSLQLPFALIPILTFT
 SLRPVMSDFANLWRIAGGILVLIICSINMYFVVVYVRDLGHVALYVVAVVSVAYLGFVYLGWQCLI
 ALGMSFLDCGHTVSIKGLLTEEATRGYVK

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001174125

ORF Size: 1770 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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).

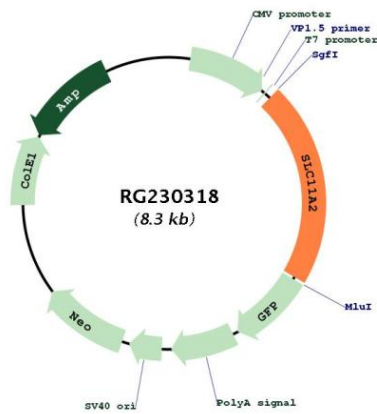
Reconstitution Method:

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_001174125.2](#)
RefSeq Size: 4156 bp
RefSeq ORF: 1773 bp
Locus ID: 4891
UniProt ID: [P49281](#)
Cytogenetics: 12q13.12
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 RG230318