

Product datasheet for **RG230278**

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:	TurboGFP
Symbol:	SLC11A2
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:

>RG230278 representing NM_001174129
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGTCTGGGCTCTGAACAGAAGATGTCAGATGACAGTGTCTGGAGATCATGGGAGTCTGCCAGTC
 TTGGTAACATCAACCCTGCCTATAGTAATCCCTCTCTTTCACAGTCCCCTGGGGACTCAGAGGAGTACTT
 CGCCACTTACTTTAATGAGAAGATCTCCATTCTGAGGAGGAGTACTCTTGTCTTTCGTAAGTCT
 TGGGCTTTCACCGGACCAGGTTTTCTTATGAGCATTGCCTACCTGGATCCAGGAAATATTGAATCCGATT
 TGCAGTCTGGAGCAGTGGCTGGATTTAAGTTGCTCTGGATCCTTCTGTTGGCCACCCTTGTGGGCTGCT
 GCTCCAGCGGCTTGCAGCTAGACTGGGAGTGGTACTGGGCTGCATCTTGTGAAGTATGCACCGTCAG
 TATCCCAAGTCCACGAGTCATCCTGTGGCTGATGGTGGAGTTGGCTATCATCGGCTCAGACATGCAAG
 AAGTCATTGGCTCAGCCATTGCTATCAATCTTCTGTCTGTAGGAAGAATTCCTCTGTGGGTGGCGTTCT
 CATCACCATTGCAGATACTTTTGTATTTCTCTTCTGGACAAATATGGCTTGCAGGAGCTAGAAGCATT
 TTTGGCTTCTCATCACTATTATGGCCCTCACATTTGGATATGAGTATGTTACAGTGAAACCCAGCCAGA
 GCCAGGACTCAAGGCATGTTCTGACCATCTGTTCCAGGCTGTCGCACTCCACAGATTGAACAGGCTGT
 GGGCATCGTGGGAGCTGTATCATGCCACACAACATGTACCTGCATTCTGCCTTAGTCAAGTCTAGACAG
 GTAACCCGGAACAATAAGCAGGAAGTTCGAGAAGCCAATAAGTACTTTTTTATTGAATCTGCATTGCAC
 TCTTTGTTTCTTATCATCAATGTCTTTGTTGTCTCAGTCTTTGCTGAAGCATTTTTTGGGAAAACCAA
 CGAGCAGTGGTGAAGTCTGTACAAAACCAGCAGTCTCATGCTGGCCTTTTCTAAAGATAACTCG
 ACATGGCTGTGGACATCTACAAAGGGGTGTTGTGCTGGGATGTTACTTTGGCCTGCTGCACCTACA
 TTTGGGAGTGGGATCCTGGCTGCAGGACAGACTCCACCATGACAGGAACCTATTCTGGCCAGTTTGT
 CATGGAGGGATTCTGAACCTAAAGTGGTCACGCTTTGCCCGAGTGGTCTGACTCGCTCTATTGCCATC
 ATCCCCACTCTGCTTGTGCTGCTTCCAAGATGTAGAGCATCTAACAGGGATGAATGACTTTCTGAATG
 TTCTACAGAGCTTACAGCTTCCCTTTGCTCTCATACCATCCTCACATTTACGAGCTTGGCGCCAGTAAT
 GAGTGACTTTGCCAATGGACTAGGCTGGCGGATTGCAGGAGGAATCTTGGTCTTATCATCTGTTCCATC
 AATATGTACTTTGTAGTGGTTTATGTCCGGACCTAGGGCATGTGGCATTATATGTTGGTGGCTGCTG
 TCAGCGTGGCTTATCTGGGCTTTGTGTTCTACTGGGTTGGCAATGTTTGATTGCACTGGGCATGCTCT
 CCTGGACTGTGGCATAACGTAAGCATCTAAAGGCCTGCTGACAGAAGAAGCCACCCGTTGGCTACGTT
 AAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG230278 representing NM_001174129
 Red=Cloning site Green=Tags(s)

MVLGPEQKMSDDSVSGDHGESASLGNINPAYSNPSSLQSPGDSEEFATYFNEKISIPPEEYSCFSFRKL
 WAFTGPGFLMSIAYLDPGNIESDLQSGAVAGFKLLWILLLATLVGLLLQRLAARLGVVTLHLAEVCHRQ
 YPKVPRVILWLMVELAIIGSDMQEVIQSAIAINLLSVGRIPWGGVLTITADTFVFLFDKYGLRLEAF
 FGLFITIMALTFGYEYVTVKPSQSQVLKGMFVPSVSCSGCRTPQIEQAVGIVGAVIMPHNMYLHSAVKSRQ
 VNRNKNQEVREANKYFFIESCIALFVSFIINVFVVSVAEAFVFGKNEQVVEVCTNTSSPHAGLFPKDNS
 TLAVDIYKGGVVLGCYFGPAALYIWAAGVILAAQSSMTGTYSQGFVMEGFLNLKWSRFARVVLTRSLAI
 IPTLLVAVFQDVEHLTGMNDFLNLQSLQLPFALIPILTFTSLRPVMSDFANGLGWRIAGGILVLIICSI
 NMYFVVVYVRDLGHVALYVVAVVSVAYLGFVYLGWQCLIALGMSFLDCGHTVSIKGLLTEEATRGYV
 K

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

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:	<ol style="list-style-type: none">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_001174129.1 , NP_001167600.1
RefSeq Size:	4424 bp
RefSeq ORF:	1686 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]