

Product datasheet for **RG230290**

DMT1 (SLC11A2) (NM_001174127) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DMT1 (SLC11A2) (NM_001174127) 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:

>RG230290 representing NM_001174127
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGTCTGGGTCTGAACAGAAGATGTCAGATGACAGTGTCTGGAGATCATGGGGAGTCTGCCAGTC
 TTGGTAACATCAACCCTGCCTATAGTAATCCCTCTCTTTCACAGTCCCCTGGGGACTCAGAGGAGTACTT
 CGCCACTTACTTTAATGAGAAGATCTCCATTCTGAGGAGGAGTACTCTTGTCTTTCGTAAGTCT
 TGGGCTTTCACCGGACCAGGTTTTCTTATGAGCATTGCCTACCTGGATCCAGGAAATATTGAATCCGATT
 TGCAGTCTGGAGCAGTGGCTGGATTTAAGTTGCTCTGGATCCTTCTGTTGGCCACCCTTGTGGGGCTGCT
 GCTCCAGCGGCTTGCAGCTAGACTGGGAGTGGTACTGGGCTGCATCTTGTGAAGTATGCACCGTCAG
 TATCCCAAGTCCACGAGTCATCCTGTGGCTGATGGTGGAGTTGGCTATCATCGGCTCAGACATGCAAG
 AAGTATTGGCTCAGCCATTGCTATCAATCTTCTGTCTGTAGGAAGAATTCCTCTGTGGGGTGGCGTTCT
 CATCACCATTGCAGATACTTTTGTATTTCTCTTCTGGACAAATATGGCTTGCAGGAGCTAGAAGCATT
 TTTGGCTTCTCATCACTATTATGGCCCTCACATTTGGATATGAGTATGTTACAGTGAAACCCAGCCAGA
 GCCAGGACTCAAGGGCATGTTCTGACCATCTGTTCCAGGCTGTCGCACTCCACAGATTGAACAGGCTGT
 GGGCATCGTGGGAGCTGTATCATGCCACACAACATGTACCTGCATTCTGCCTTAGTCAAGTCTAGACAG
 GTAACCCGGAACAATAAGCAGGAAGTTCGAGAAGCCAATAAGTACTTTTTTATTGAATCTGCATTGCAC
 TCTTTGTTTCTTATCATCAATGTCTTTGTTGTCTCAGTCTTTGCTGAAGCATTTTTTGGGAAAACCAA
 CGAGCAGTGGTTGAAGTCTGTACAAAACCAGCAGTCCATGCTGGCCTTTTCTAAAGATAACTCG
 ACATGGCTGTGGACATCTACAAAGGGGTGTTGTGCTGGGATGTTACTTTGGCCTGCTGCACCTACA
 TTTGGGAGTGGGATCCTGGCTGCAGGACAGACTCCACCATGACAGGAACCTATTCTGGCCAGTTTGT
 CATGGAGGGATTCTGAACCTAAAGTGGTCACGCTTTGCCCGAGTGGTCTGACTCGCTCTATTGCCATC
 ATCCCCACTCTGCTTGTGCTGCTTCCAAGATGTAGAGCATCTAACAGGGATGAATGACTTTCTGAATG
 TTCTACAGAGCTTACAGCTTCCCTTTGCTCTCATACCATCCTCACATTTACGAGCTTGGCGCCAGTAAT
 GAGTGACTTTGCCAATGGACTAGGCTGGCGGATTGCAGGAGGAATCTTGGTCTTATCATCTGTTCCATC
 AATATGTACTTTGTAGTGGTTTATGTCCGGACCTAGGGCATGTGGCATTATATGTTGGTGGCTGTGTTG
 TCAGCGTGGCTTATCTGGGCTTTGTGTTCTACTGGGTTGGCAATGTTTGATTGCACTGGGCATGCTCTT
 CCTGGACTGTGGGCATACGTGCCATCTGGGATTGACAGCTCAGCCTGAACCTATCTTCTGAACACCATG
 GACGCTGACTCACTTGTGTCTAGA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG230290 representing NM_001174127
 Red=Cloning site Green=Tags(s)

MVLGPEQKMSDDSVSGDHGESASLGNINPAYSNPSSLQSPGDSEEYFATYFNEKISIPPEEYSCFSFRKL
 WAFTGPGFLMSIAYLDPGNIESDLQSGAVAGFKLLWILLLATLVGLLLQRLAARLGVVTLHLAEVCHRQ
 YPKVPRVILWLMVELAIIGSDMQEVIQSAIAINLLSVGRIPWGGVLIITADTFVFLFDKYGLRLEAF
 FGFLITIMALTFGYEYVTKPSQSQVLKGMFVPSVSCSGCRTPQIEQAVGIVGAVIMPHNMYLHSAVKSRQ
 VNRNNKQEVREANKYFFIESCIALFVSFIINVFVVSVAEAFVFGKNEQVVEVCTNTSSPHAGLFPKDNS
 TLAVDIYKGGVVLGCYFGPAALYIWAAGVILAAGQSTMTGTYSQGFVMEGFLNLKWSRFARVVLTRSLAI
 IPTLLVAVFQDVEHLTGMNDFLNVLQSLQLPFALIPILFTSLRPVMSDFANGLGWRIAGGILVLIICSI
 NMYFVVVYVRDLGHVALYVVAVVSVAYLGFVYLGWQCLIALGMSFLDCGHTCHLGLTAQPELYLLNTM
 DADSLVSR

TRTRPLE – GFP Tag – V

Restriction Sites:

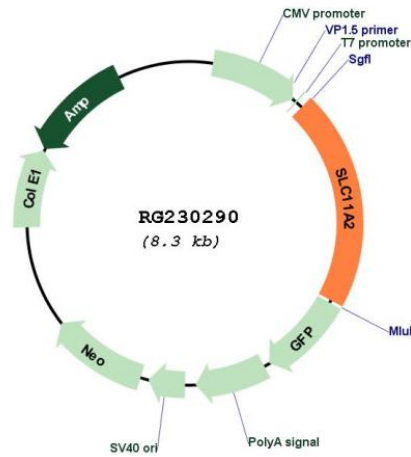
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001174127
 ORF Size: 1704 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:	<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_001174127.2
RefSeq Size:	3790 bp
RefSeq ORF:	1707 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]