

Product datasheet for **MG216980**

Pm20d1 (NM_178079) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pm20d1 (NM_178079) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pm20d1
Synonyms:	4732466D17Rik; AI098026
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG216980 representing NM_178079
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCTGAGCTACTTGCTAGCTTCCCCGCCTGGGCAGCTGTGCTCCTTCTTTTTTCGCTACGGTCTCCG
 GATCCACTGGCCCTAGAAGCAGGAAAAATCGGGGGCGTCCCGGATCCCTTCCCAGTTACAGCAGGAGGA
 CGGTGTCGCTATAAAAGAGGCGCTGAAAGGTGCCATCCAGATTCCACAGTGTCTTTCAGCCACGAGGAA
 TCCAACACCACAGCCCTTGCTGAGTTTGGAGAATATATCCGAAAAGCCTTCCCTACAGTGTTCACAGCA
 GCCTTGTCCAACATGAAGTCGTGGCAAAGTATAGCCACCTGTTACCCATCCAAGGCTCAGACCCAGTTT
 GCAGCCCTACATGCTGATGGCTCACATTGATGTGGTTCCTGCCCCGGAAGAAGGATGGGAGGTGCCCCCG
 TTCTCAGGCTGGAACGCAATGGCTTCATCTATGGCCGGGTGCGCTGGACAACAAAACTCTGTGATGG
 CGATCCTGCATGCTTTGGAGCTCCTGTTGATCAGAACTACAGCCCCAAAAGATCTTCTTCATTGCTTT
 GGGCCATGATGAGGAGGTGCCGGGAAAAGGGGCTCAGAAGATCTCAGCACTTTACAGCAAGGGGT
 GTCAGCTAGCCTTCTTGTGGATGAAGGGAGCTTTATCTTGAAAGGCTTCATCCAAACCTCGAGAAGC
 CAGTTGCCATGATTTAGTCACTGAGAAGGGTGCCTTGACCTCATGCTGCAAGTAAACATGACTCCAGG
 CCACTTTCAGCTCCCCAAAGGAGACAAGCATTGGCATTCTTCTGCCGCTGTCAGCCGACTGGAGCAG
 ACACCAATGCCGAATATGTTTGGAGGAGGGCCATTGAAGAAGACAATGAAGCTACTGGCAAATGAGTTTT
 CCTTCCATCAATATAGTCTTGAGAACTGTGGCTATTTTATCCCATTGTGAGCAGGATAATGGAGAG
 GAACCCATAACAAATGCGCTGGTCCGAACACACAGCCCTCACCATGTTCAATGCAGGAATCAAGGTG
 AATGTCATCCCTCATTGGCTCAGGCTACAATCAACTGCCGAATCACCCCTCGCAGACAGTACATGAGG
 TCCTAGAACTTGTCAAGAACACCGTGGCTGATGACAGAGTCCAGCTGCATGTGTTGAGATCCTTTGAAC
 CCTGCCCATCAGCCCTCTGATGACCAGGCCATGGGCTACCAGCTGCTTCAAGAGACCATACGATCTGTC
 TCCCCGGAAGTCGACATCGTCGTCGCCGGTATTTGATTGCAATACGGACACCCGACACTATGCCAACA
 TCACCAATGGCATGTACCGGTTCAACCCCTTCCCTGAACCCTCAGGACTTCAGTGGTGTCCATGGAAT
 CAATGAGAAAGTTTCCGTTCAGAACTACCAGAACCAGGTGAAGTTCATCTTTGAGTTCATCCAAATGCC
 GACTTACAAGAGCCAGTTCTCATCTGCATGAACTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG216980 representing NM_178079
 Red=Cloning site Green=Tags(s)

MAELLASLPAAAVLLLLFFATVSGSTGPRSRENRGASRIPSQFSEEERVAIKEALKGAIQIPTVSFSHEE
 SNTTALAEFGEYIRKAFPTVFHSSLVQHEVVAKYSHLFTIQGSDPSLQPYMLMAHIDVVPAPEEGWEVPP
 FSLGERNGFIYGRGALDNKNSVMAILHALELLLIRNYSKRSFFIALGHDEEVSGEKGAKISALLQARG
 VQLAFLVDEGSFILEGFIPNLEKPVAMISVTEKALDLMLQVNMTPGHSSAPPKETSIGILSAAVSRLEQ
 TPMPNMFGGGPKKTMKLLANEFSPINIVLRNLWLFHPIVSRIMERNPITNALVRTTTALTMFNAGIKV
 NVIPPLAQATINCRIHPSQTVHEVLELVKNTVADDRVQLHVLRSFEPLPISPSDDQAMGYQLLQETIRSV
 FPEVDIVVPGICIANTRHYANITNGMYRFNPLPLNPQDFSGVHGINEKVSQVQYQNVKFIFFIQNA
 DTYKEPVPHLHEL

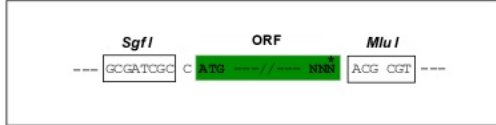
TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:

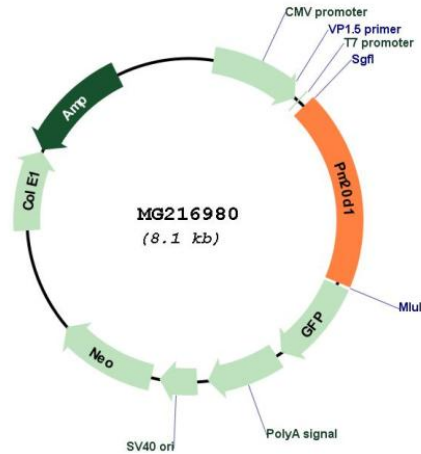


EcoRI *BamHI* *KpnI* *RBS* *Kozac Consensus* *SgfI* *AscI*
 CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

HindIII *NheI* *RsrII* *MluI* *NotI* *XhoI* *GFP Tag*
 CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC ---
 T R T R P L E M E S D - - -

PmeI *FseI*
 --- GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT
 - - E E R V Stop

Plasmid Map:



ACCN:	NM_178079
ORF Size:	1509 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.

RefSeq: [NM_178079.3](#), [NP_835180.2](#)

RefSeq Size: 3540 bp

RefSeq ORF: 1512 bp

Locus ID: 212933

UniProt ID: [Q8C165](#)

Cytogenetics: 1 E4

Gene Summary: Bidirectional N-fatty-acyl amino acid synthase/hydrolase that regulates the production of N-fatty-acyl amino acids. These metabolites are endogenous chemical uncouplers of mitochondrial respiration. In an UCP1-independent manner, maybe through interaction with mitochondrial transporters, they promote proton leakage into the mitochondrial matrix. Thereby, this secreted protein may indirectly regulate the bodily dissipation of chemical energy as heat through thermogenic respiration.[UniProtKB/Swiss-Prot Function]