

Product datasheet for **MG210910**

Pml (BC020990) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pml (BC020990) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pml
Synonyms:	1200009E24Rik; AI661194; Trim19
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>MG210910 representing BC020990
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAAACTGAACCAAGTTCCGTGCAGAAGGTACCTGCACCCCCTGGATCTCCCTGTCGACAACAGGACT
 CTGCCCTGACCCACGCCACCATGCCTCCCCAGAGGAACCCCTCCGAAGACTATGAACACAGCCAAAG
 CCCTGCAGAGCAAGCCATACAGGAGGAATTTAGTTTCTGCGCTGCCCGAGCTGCCAGGCCCAAGCCAAAG
 TGCCCCAAACTGCTGCCTTGCTGCACACGCTGTGCTCCGGATGCCTGGAGGCGCCTGGCCTGCAGTGCC
 CCATCTGCAAGGCTCCTGGGCAGGCCGATGCTAATGGGGAGGCCCTGGATAACGTGTTCTTCGAGAGCCT
 GCAGCGGCGCCTGGCGGTGTTCCGGCAGATCGTGGATGCTCAGGCTGCGTGCACCCGCTGCAAAGGCTTG
 GCCGACTTCTGGTGTTCGAGTGTGAACAGCTCATTTGCAGCAAGTGCTTGAAGCACACCAGTGGTACC
 TCAAGCATGAGGCCCGGCCCTGGCCGATCTCCGCGACAATTAGTGAGCAGCTTCTCGACAGTACGCG
 CAAGTCCAATATCTTCTGCTCCAATACCAACCACCGCAACCCCTGCGCTGACTGACATCTACTGCCGAGGC
 TGGCCAAAGCCTCTGTGTGCACATGCGCGCTCCTGGACCACAACACAGCCATCTCCATTGCGATATTG
 GTGAGGAGATTAGCAGTGGCATGAGGAACTAGGCACCATGACACAGACTCTGGAGGAGCAGGGCAGAAC
 CTTTCGACAGTGCCATGCACAGATGTGCTCAGCTATAGGACAGCTGGACCACGCACGCGCAGACATTGAG
 AAGCAGATCCGCGCACCGGTGCGCCAGGTGGTAGACTACGTGCAGGCTCAGGAGCGCAGCTGCTCGAGG
 CGGTGAATGACCGCTACCAGCGGACTACCAGGAAATAGCTGGCCAGCTGAGCTGCCTGGAAGCTGTGCT
 GCAGCGCATCCGCACTAGTGGGGCGCTGGTCAAGAGGATGAAGCTCTATGCCTCCGACAGGAGGTGCTG
 GATATGCACAGCTTTCTGCGCAAGGCACTCTGTAGCTTGCGCCAGGAGGAGCCCAAGCAACAGAAAGTCC
 AGCTGCTCACCAGAGTTTCGAGGAGTTCAAGCTGTGCCTGAGGACTTCACTCTCCTGCAACCCAGGAG
 GATAAATGCAGCTGTAGCCAGCCAGAGGCAAGCCAGCAATCAACCAGAGGCAAGCAGCACTCACCCAGTG
 ACAACCAGCACGCTGAGGACCTTGTGCAGGAGGCTTCTCAGACAGTCCGCTCCATGAAGAGGAAGTGTCT
 CCCACGAAGATTGCTCCAGGAAGATCATCAAGATGGAGTCCACAGAGGAGAACGAGGACAGGTTGGCCAC
 AAGCTCCCCGAGCAGTCTGGCCAGCACTTTCAAGGCCACCTCCCCTCCCCATCTGGATGGGACTTCC
 AACCTGAGAGCACCGTCCCTGAAAAAAGATCCTCCTGCCCAACAACAATCATGTTACCAGTGACACAG
 GGGAAACAGAGGAGCGAGTTGTGGTGATCAGCAGCTCAGAGGATTCGGACACCGAGAATCTGTCTCCCA
 CGAGTTGGACGATAGCAGCAGTGAAGTCCAGCAGCTGCAGCTGGAGGGCCCAATCCCTCAAGGCCTTG
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 GGCTTCAAGTGTCTACTCAAAGCTGTCTCCCTGGAGGCAAGGCTCCGGCACTTCCCTCAGCTTCTCACC
 ACCATGCATCGTCCCATCTTGGCGTGTCTAGGCTGTGGGGGCGGGGACTCCCCATCTTCTCCAGACCC
 TGAGTGATATTAACAAGCTGTGGGAATTCAGGACACCATCTCAGGTTTCTTGGCCGTGTGCCCTCAT
 CCGGGAACGCATACCCGGCGCTAGCAGCTTCAAACCTGGGAACCTAGCCAAGACCTACCTGGCGAGAAAC
 ATGAGCGAACGCAGCGCTCTGGCTTCTGTGCTGGCCATGAGGGACTTGTGCTGCCTCCTTGAAGTCTCC
 CAGGACTGCCGCTGGCCAGCATATCTACTCCTTAGTAGCTTGCAGTGTGTTGCTTCCCTGCAGCCCT
 AATTCAGGCCAGCGTCTGCCACAGTCCGAGGCCCGCTCTTGGCCCTCCACAATGTGAGCTTTGTAGAG
 TTGCTGAATGCATATCGACCAACAGGCAAGAAGGCTTGAAGAAGTATGTCCACTATCTGAGCCTGCAGA
 CCACCCGTTGTATCGTCGGCTTCCACCAAGTTGCCAATTCTGCAGGCTCTTAGCACCCACATGGA
 AGGACTGTTGGAAGGCCATGCCCTGCTGGGCGAGAAGGCAAGCTGAAAGTAAGGGATGCCTGGCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG210910 representing BC020990
 Red=Cloning site Green=Tags(s)

METEPVSVQKVPAPPGPSRQQDSALTPPTMPPEEPSSEDEYHSQSPAEQAIQEETFQLRCPSCQAQAK
 CPKLLPCLHTLCSGCLEAPGLQCPICKAPGQADANGEALDNVFFESLQRR LAVFRQIVDAQAACTRCKGL
 ADFWCFECEQLICSKCFEAHQWYLKHEARPLADLRDINSVSSFLDSTRKSNIFCSNTNHRNPALTDIYCRG
 CAKPLCCTCALLDRNHSHLHCDIGEEIQQWHEELGTMQTLEEQGRTFDSAHAQMCSAIGQLDHARADIE
 KQIRARVRQVVDYVQAQERELLEAVNDRYQRDYQEIAGQLSCLEAVLQRI RTSGALVKRMKLYASDQEV L
 DMHSFLRKALCSLRQE EPQNKVQLLTRGFEEFKLCLQDFISCI TQRINA AVASPEAASNQPEAASTHPV
 TTSTPEDLVQEASQTVGSMKRKCSHEDCSRKIIKMESTEENEDRLATSSPEQSWPSTFKATSPPHLDGTS
 NPSTVPEKKILLPNNHVTSDTGETEERVVVISSSESDTENLSSHELDDSSSESSLQLEGPNL KAL
 DESLAEPHLEDRTL VFFDLKIDNETQKISQLAAVNRESKFRVLIQPEAFSVYSKAVSLEAGLRHFLSFLT
 TMHRPILACSRLWGPGLPIFFQTLSDINKLWEFQDTISGFLAVLPLIRERIPGASSFKLGNLAKTYLARN
 MSERSALASV LAMRDLCCLEISPGLPLAQHIYSFSSLQCFASLQPLIQASVLPQSEARLLALHNVSFVE
 LLNAYRTNRQEGLKKYVHYLSLQTTP LSSASTQVAQFLQALSTHMEGLLEGHAPAGAEGKAESKGCLA

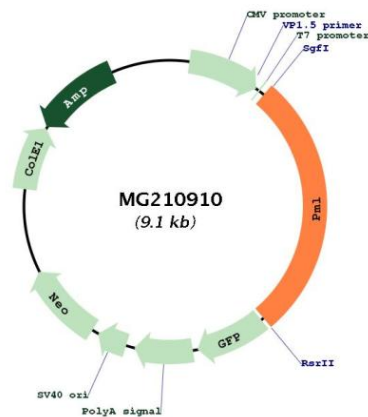
SGPTRRRLE - GFP Tag - V

Restriction Sites: Sgfl-RsrII

OTI Disclaimer:	<p>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.</p> <p>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</p>
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:	<u>BC020990</u> , <u>AAH20990</u>
RefSeq Size:	4296 bp
RefSeq ORF:	2519 bp
Locus ID:	18854
Cytogenetics:	9 31.63 cM

Gene Summary:

Functions via its association with PML-nuclear bodies (PML-NBs) in a wide range of important cellular processes, including tumor suppression, transcriptional regulation, apoptosis, senescence, DNA damage response, and viral defense mechanisms. Acts as the scaffold of PML-NBs allowing other proteins to shuttle in and out, a process which is regulated by SUMO-mediated modifications and interactions. Positively regulates p53/TP53 by acting at different levels (by promoting its acetylation and phosphorylation and by inhibiting its MDM2-dependent degradation). Regulates phosphorylation of ITPR3 and plays a role in the regulation of calcium homeostasis at the endoplasmic reticulum. Regulates RB1 phosphorylation and activity. Acts as both a negative regulator of PPARGC1A acetylation and a potent activator of PPAR signaling and fatty acid oxidation. Regulates translation of HIF1A by sequestering MTOR, and thereby plays a role in neoangiogenesis and tumor vascularization. Regulates PER2 nuclear localization and circadian function. Cytoplasmic PML is involved in the regulation of the TGF-beta signaling pathway. Required for normal development of the brain cortex during embryogenesis. Plays a role in granulopoiesis or monopoiesis of myeloid progenitor cells. May play a role regulating stem and progenitor cell fate in tissues as diverse as blood, brain and breast. Shows antiviral activity towards lymphocytic choriomeningitis virus (LCMV) and the vesicular stomatitis virus (VSV). [UniProtKB/Swiss-Prot Function]

Product images:

Circular map for MG210910