

Product datasheet for **MG209761**

Pif1 (NM_172453) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pif1 (NM_172453) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pif1
Synonyms:	4631410M14; AI449441
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209761 representing NM_172453
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCGCTCCGGTCTCTGCACGCCTGCAGAGCATTGGAGATGCCTTCTAGCACAGAGGCGGCGACCGATG
 AATGTGACGATGCGGAGCTCCGGTGCCGGTAGCCGTGGAGGAGCTGAGTCTGGAGGGCAACCTCGCAA
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 CTGGAGTCCCAAGACGATGAGGAGGCAAACTCAGATCTGGAGAACATGGACCCAAATCTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG209761 representing NM_172453
 Red=Cloning site Green=Tags(s)

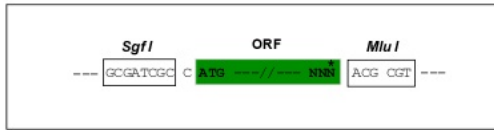
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TRTRPLE – GFP Tag – V

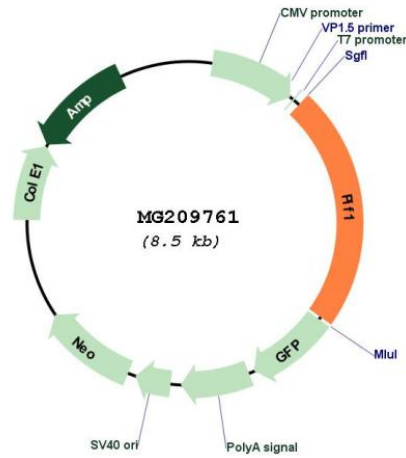
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_172453

ORF Size: 1950 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_172453.1 , NP_766041.1
RefSeq Size:	3685 bp
RefSeq ORF:	1953 bp
Locus ID:	208084
UniProt ID:	Q80SX8
Cytogenetics:	9 C
Gene Summary:	DNA-dependent ATPase and 5'-3' DNA helicase required for the maintenance of both mitochondrial and nuclear genome stability. Efficiently unwinds G-quadruplex (G4) DNA structures and forked RNA-DNA hybrids. Resolves G4 structures, preventing replication pausing and double-strand breaks (DSBs) at G4 motifs. Involved in the maintenance of telomeric DNA. Inhibits telomere elongation, de novo telomere formation and telomere addition to DSBs via catalytic inhibition of telomerase. Reduces the processivity of telomerase by displacing active telomerase from DNA ends. Releases telomerase by unwinding the short telomerase RNA/telomeric DNA hybrid that is the intermediate in the telomerase reaction. Possesses an intrinsic strand annealing activity.[UniProtKB/Swiss-Prot Function]