

Product datasheet for **MG203692**

Pef1 (NM_026441) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Pef1 (NM_026441) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Pef1
Synonyms: 2600002E23Rik; Peflin
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG203692 representing NM_026441
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCAGCTATCCAAACGGACAGAGTTGCCAGGAGCTGCAGGACAGGTGCCTGGAGTACCCCGGGG
GCTATTATCCTGGTCTCCCATGGTGGGGCCAGTATGGCAGTGGACTGCCCCAGGTGGTGGCTATGG
AGCTCCTGCCCTGGAGGACCTTATGGATACCCAGTGTGGAGGAGTCCCCTCGGGAACCCAAGTGA
CCATATGGCGGTATACCTCCAGGGGTCCCTATGGTCAGCTACCTCCAGGGGTCCCTACGGTACCCAGC
CTGGACATTATGGACAGGGTGGTGTCCCCCGAATGTGGATCCTGAGGCCTACTCCTGGTCCAGTCAGT
GGATGCCGATCACAGTGGCTATATCTCCCTCAAGGAGCTGAAGCAGGCCCTAGTCAACTCCAAGTGGTCC
TCATTCATGACGAGACATGCCACATGATGATAAACATGTTTGACAAGACCAAGTCTGGCCGATTGATG
TCGCCGGCTTCTCAGCCTTATGGAATTCCTCCAGCAGTGGAGGAACCTCTTTCAGCAGTATGACCGGGA
CCGCTCGGGCTCCATTAGCTCCACAGAGCTGCAGCAAGCGCTCTCCAGATGGGCTACAACCTGAGCCCT
CAGTTCACGCAGCTCCTGGTTCCCGGTAAGTGCAGCAGCTCTGCTATCCCGCATGCAGCTTGACTGCT
TCATCAAGGTGTGTAACAGCTGCAGGTGTTGACTGAGGCCTCCGGGAAAAGGATACCGCTGTACAGGG
CAACATCCGGCTCAGCTTTGAGGACTTTGTCACCATGACGGCTTCAAGGATGCTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG203692 representing NM_026441
 Red=Cloning site Green=Tags(s)

MASYPNGQSCPGAAGQVPVPGVPPGGYYPPPHGGGQYGSGLPPGGGYGAPAPGGPYGYPSAGGVPSGTPSG
 PYGGIPPGGYPGQLPPGGPYGTQPGHYGQGGVPPNVDPEAYSWFQSVADHSGYISLKELKQALVNSNWS
 SFNDETCMMINMFDKTKSGRIDVAGFSALWKFLQQRNLFQQYDRDRSGSISSTELQOALSQMGYNLSP
 QFTQLLVSRYCARSIPAQLDCFIKVTQLQVLTEAFREKDTAVQGNIRLSFEDFVTMTASRML

TRTRPLE - GFP Tag - V

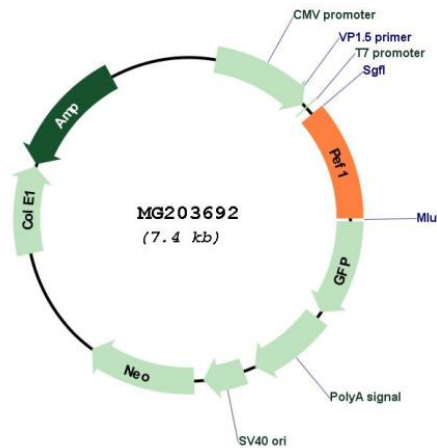
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_026441

ORF Size: 825 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_026441.2 , NP_080717.2
RefSeq Size:	1557 bp
RefSeq ORF:	828 bp
Locus ID:	67898
UniProt ID:	Q8BFY6
Cytogenetics:	4 D2.2
Gene Summary:	Calcium-binding protein that acts as an adapter that bridges unrelated proteins or stabilizes weak protein-protein complexes in response to calcium. Together with PDCD6, acts as calcium-dependent adapter for the BCR(KLHL12) complex, a complex involved in endoplasmic reticulum (ER)-Golgi transport by regulating the size of COPII coats. In response to cytosolic calcium increase, the heterodimer formed with PDCD6 interacts with, and bridges together the BCR(KLHL12) complex and SEC31 (SEC31A or SEC31B), promoting monoubiquitination of SEC31 and subsequent collagen export, which is required for neural crest specification. Its role in the heterodimer formed with PDCD6 is however unclear: some evidence shows that PEF1 and PDCD6 work together and promote association between PDCD6 and SEC31 in presence of calcium. Other reports show that PEF1 dissociates from PDCD6 in presence of calcium, and may act as a negative regulator of PDCD6 (By similarity). Also acts as a negative regulator of ER-Golgi transport; possibly by inhibiting interaction between PDCD6 and SEC31 (By similarity).[UniProtKB/Swiss-Prot Function]