

Product datasheet for **MG208459**

Parp3 (NM_145619) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Parp3 (NM_145619) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Parp3
Synonyms:	A930002C11Rik; Adprt3; AdprtI3; AW990611; pADPRT-3; PARP-3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG208459 representing NM_145619
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTCCAAACGAAAGCCTCTGTGCAGACTGAGGGCTCCAAGAAGCAGCGACAAGGGACAGAGGAGG
 AGGACAGCTTCCGGTCCACTGCCGAGGCTCTCAGAGCAGCACCTGCTGATAATCGGGTCATCCGTGTGGA
 CCCCTCATGTCCATTCAGCCGGAACCCCGGATACAGGTCACGAGGACTATGACTGTACCTGAACCGAG
 ACCAACATCGGCAACAACAACAAGTTCTATATTATCCAAGTCTGGAGGAGGGTAGTCGCTTCTTCT
 GCTGGAATCGCTGGGCGCGTGGGAGAGGTGGGCCAGAGCAAGATGAACCACTTCACCTGCCTGGAAGA
 TGCAAAGAAGGACTTTAAGAAGAAATTTGGGAGAAGACTAAAAACAATGGGAGGAGCGGGACCGTTTT
 GTGGCCACGCCAACAGTACACACTTATAGAAGTCCAGGGAGAAGCAGAGAGCCAAGAGGCTGTAGTGA
 AGGTGGACAGCGCCCTGTGAGGACCGTGGTCAAGCCCTGCTCCCTAGACCCTGCCACCCAGAACCTTAT
 CACCAACATCTTCAGCAAAGAGATGTTCAAGAACGCAATGACCCTCATGAACCTGGATGTGAAGAAGATG
 CCCTTGGGAAAGCTGACCAAGCAGCAGATTGCCGGTGGCTTCGAGGCCTTGAAGCTCTAGAGGAGGCCA
 TGA AAAACCCACAGGGGATGGCCAGAGCCTGGAAGAGCTCTCCTCTGCTTCTACACTGTCATCCACACA
 CAACTTCGGCCGACGCCACCCCGCCCATCAACTCCCCTGATGTGCTTCAGGCCAAGAAGGACATGCTG
 CTGGTGTAGCGGACATCGAGTTGGTGCAGACCTTGCAGGCAGCCCTGGGGAGGAGGAGGAGAAAGTGG
 AAGAGGTGCCACCCACTGGATCGAGACTACCAGCTCCTCAGGTGCCAGCTTCAACTGCTGGACTCCGG
 GGAGTCCGAGTACAAGGCAATACAGACCTACCTGAAACAGACTGGCAACAGCTACAGGTGCCAAACCTG
 CGGCATGTTTGGAAAGTGAACCGAGAAGGGGAGGAGACAGGTTCCAGGCCCACTCCAAACTGGCAATC
 GGAGGCTGCTGTGCACGGCACCAATGTGGCCGTGGTGGCTGCCATCCTCACCAGTGGGCTCCGAATCAT
 GCCACACTCGGGTGGTCTGTTGGCAAGGGTATTTATTTGCTCTGAGAACAGCAAGTCAGCTGGCTAT
 GTTACCACCATGCACTGTGGGGCCACAGGTGGGCTACATGTTCTGGGCGAGGTGGCCCTCGGCAAAG
 AGCACCACATCACCATCGATGACCCAGCTTGAAGAGTCCACCCCTGGCTTTGACAGCGTCATCGCCCG
 AGGCCAAACCGAGCCGGATCCCGCCAGGACATTGAAGTGAAGTGGATGGGAGCCGGTGGTGGTGGCC
 CAAGGCCCGCCTGTGCAGTGCCTGATTCAAAAGCTCCAGCTTCAGCCAGAGTGAATACCTCATATACA
 AGGAGAGCCAGTGCCTGCGCTACCTGCTGGAGATTCACCTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG208459 representing NM_145619
 Red=Cloning site Green=Tags(s)

MAPKRKASVQTEGSKKQRQGTEEEESFRSTAEALRAAPADNRVIRVDPSCPF SRNPGIQVHEDYDCTLNQ
 TNIGNNNKFYIIQLLEEGSRFFCWNWRGRVGEVQSKMNHFTCLEDAKKDFKKKFWEKTKNKWEERDRF
 VAQPNKYTLIEVQGEAESQEA VVKVDSGPVRTVVKPCSLDPATQNLITNIFSKEMFKNAMTLMNLDVKKM
 PLGKLTQQIARGFEALEALEEAMKNPTGDGQSL EELSSCFYTVIPHNFGRSRPPPI NSPDVLQAKKDML
 LVLADIELVQTLQAAPGEEEEKVEEVPHP LDRDYQLLRQQLLD SGSEYKAIQTYLKQTGNSYRCPNL
 RHVWKNREGEGRFQAHSKLG NRLLWHGTNAVVAAILT SGLRIMPHSGGRVKGKIYFASENKSAGY
 VTTMHCGGHQVGYMFLGEVALGKEHHITIDDP SLKSPPPGFDSVIARGQTEPDPAQDIELELDGQPVVVP
 QGPPVQCPSFKSSFSQSEYLIYKESQCRLRYLLEIHL

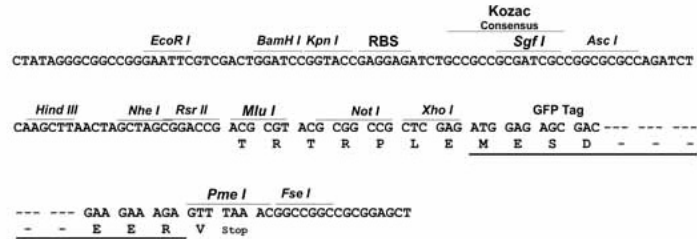
TRTRPLE – GFP Tag – V

Restriction Sites:

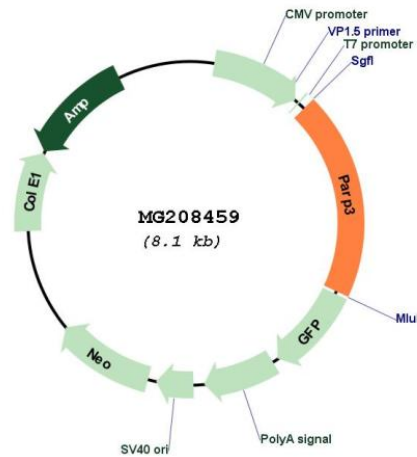
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN:	NM_145619
ORF Size:	1584 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_145619.1
RefSeq Size:	2633 bp
RefSeq ORF:	1587 bp
Locus ID:	235587
UniProt ID:	Q8CFB8
Cytogenetics:	9 F1

Gene Summary:

Mono-ADP-ribosyltransferase that mediates mono-ADP-ribosylation of target proteins and plays a key role in the response to DNA damage (PubMed:21270334, PubMed:24598253). Mediates mono-ADP-ribosylation of glutamate, aspartate or lysine residues on target proteins (By similarity). In contrast to PARP1 and PARP2, it is not able to mediate poly-ADP-ribosylation (By similarity). Associates with a number of DNA repair factors and is involved in the response to exogenous and endogenous DNA strand breaks (PubMed:21270334). Together with APLF, promotes the retention of the LIG4-XRCC4 complex on chromatin and accelerate DNA ligation during non-homologous end-joining (NHEJ) (By similarity). Cooperates with the XRRC6-XRCC5 (Ku70-Ku80) heterodimer to limit end-resection thereby promoting accurate NHEJ (PubMed:24598253). Involved in DNA repair by mediating mono-ADP-ribosylation of a limited number of acceptor proteins involved in chromatin architecture and in DNA metabolism, such as XRRC5 and XRCC6 (By similarity). ADP-ribosylation follows DNA damage and appears as an obligatory step in a detection/signaling pathway leading to the reparation of DNA strand breaks (By similarity). May link the DNA damage surveillance network to the mitotic fidelity checkpoint (By similarity). In addition to proteins, also able to ADP-ribosylate DNA: mediates DNA mono-ADP-ribosylation of DNA strand break termini via covalent addition of a single ADP-ribose moiety to a 5'- or 3'-terminal phosphate residues in DNA containing multiple strand breaks (By similarity). Acts as a negative regulator of immunoglobulin class switch recombination, probably by controlling the level of AICDA /AID on the chromatin (PubMed:26000965).[UniProtKB/Swiss-Prot Function]