

Product datasheet for **MG210860**

Parp9 (NM_030253) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Parp9 (NM_030253) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Parp9
Synonyms:	ARTD9; AW214463; Bag1; Bal; BC003281; PARP-9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG210860 representing NM_030253
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCCTATTACATGGATACATGGGCGGCAGCTCCCGCCGAAAGACCAGCCAACAATTCTCTTGAAGAAC
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 AGGATAGGACATTCTCACAGCATCCGATGTGGTACAGGGCTACTCATCAGGACCAGGAATGGTCTCTTC
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ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

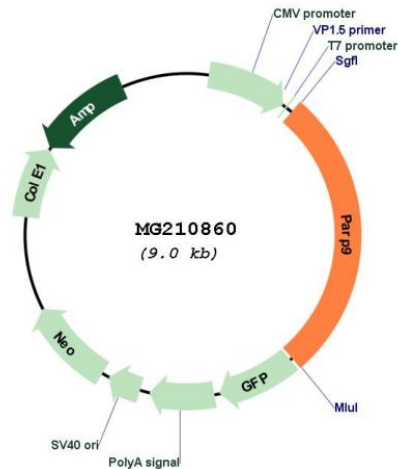
Protein Sequence: >MG210860 representing NM_030253
 Red=Cloning site Green=Tags(s)

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MAYYMDTWAAPAERPANNLEEYHRWQIPIKHNVEILKSNESQLCEVLQNKFGCISTLSCPTLAGSSS
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ISVGGIAITGAGRLPCHLIIHAVGPRWTVTNSQTAIELLKFAIRNILDYVTKYDLRIKTVAIPALSSGIF
QFPLDLCTSIILETIRLYFQDKQMFGNLREIHLVSNEDPTVASFKSASESILGRDLSSWGGPETDPASTM
TLRIGRGLTLQIVQGCIEMQTTDVIIVNSGYMDFKSGRVAQSILRQAGVEMEKELDKVNLSTDYQEVVWT
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AFAKEHKEKTLTVKIVIFPVDVETYKIFYAEMTKRSNELNLSGNSGALALQWSSGEQRRGGLEAGSPAIN
LMGVKVGEMCEAQEWIERLLVSLDHHIENNHILYL GKKEHDVLSLQTSRVSISSETVSPRTATLEIKG
PQADLIDAVMRIECMLCDVQEEVAGKREKNLWSLSGQGTNQQEKLDKMEESYTFQRYPASLTQELQDRKK
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PVYAGIYFTKSLKNLADKVKTSSTDKLIYVFEAEVL TGSFCQGNSSNIIPPPLSPGALDVNDSVVDNV
SSPETIVVFNGMQAMPLYLWTCTQDRTF SQHPMWSQGYSSGPGMVSSLQSEWVVLNGSSV
  
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TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-Mlul

Plasmid Map:


ACCN: NM_030253

ORF Size: 2490 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_030253.3](#), [NP_084529.1](#)

RefSeq Size: 3564 bp

RefSeq ORF: 2493 bp

Locus ID: 80285

UniProt ID: [Q8CAS9](#)

Cytogenetics: 16 B3

Gene Summary: ADP-ribosyltransferase which, in association with E3 ligase DTX3L, plays a role in DNA damage repair and in immune responses including interferon-mediated antiviral defenses (PubMed:27796300). Within the complex, enhances DTX3L E3 ligase activity which is further enhanced by PARP9 binding to poly(ADP-ribose) (By similarity). In addition, positively regulates DTXL3 protein levels (By similarity). In association with DTX3L and in presence of E1 and E2 enzymes, mediates NAD(+)-dependent mono-ADP-ribosylation of ubiquitin which prevents ubiquitin conjugation to substrates such as histones (By similarity). During DNA repair, PARP1 recruits PARP9/BAL1-DTX3L complex to DNA damage sites via PARP9 binding to ribosylated PARP1 (By similarity). Subsequent PARP1-dependent PARP9/BAL1-DTX3L-mediated ubiquitination promotes the rapid and specific recruitment of 53BP1/TP53BP1, UIMC1/RAP80, and BRCA1 to DNA damage sites (By similarity). In response to DNA damage, PARP9-DTX3L complex is required for efficient non-homologous end joining (NHEJ) but the complex function is restrained by PARP9 activity (By similarity). Dispensable for B-cell receptor (BCR) assembly through V(D)J recombination and class switch recombination (CSR) (PubMed:28105679). In macrophages, positively regulates pro-inflammatory cytokines production in response to IFNG stimulation by suppressing PARP14-mediated STAT1 ADP-ribosylation and thus promoting STAT1 phosphorylation (PubMed:27796300). Also suppresses PARP14-mediated STAT6 ADP-ribosylation (By similarity).[UniProtKB/Swiss-Prot Function]