

Product datasheet for **SC103054**

PARP9 (AK092629) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PARP9 (AK092629) Human Untagged Clone
Tag:	Tag Free
Symbol:	PARP9
Synonyms:	ARTD9; BAL; BAL1; MGC:7868
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for AK092629, the custom clone sequence may differ by one or more nucleotides

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GCTTTTTAGCCGTGCAATATTCCAAATTATAGGACTCTCAGTCAATTTAGATGGCCACCCACAGGCAA  
GGAGACAGAACTTCTGTAAACAAACCTTTATTTCTTTTTCTATTTATGTTTGCAATCCAACAGTTCT  
GAATAAATCTCTTGCTTGTAGGACTTGGTTGAGTGCAGCAAGAAGGCATCTACACATGCAGTTTCTTACT  
GGGTTGATTCATTTGTTCCACAGGTATTTATTAAGCACATTCTATGAATCAGGCCCTGTGCTAGGGGTAC  
TAGAAATAGAGTGTAAATAAAAAACCATAGAGTCTTGCCCTTACAATTTATAATCTCACAGTTTCACT  
GTTGCCATTCTTTATCTCTCTCTTTTTCTCTACGATGTCCCTTGGTGATGGCACCTGTTCCCAT  
GGCCTCAACTCTACCTCAATGATGACGACTTAGGAATTTCTAACTCTTAACTCCCTACCTCTCTCTGA  
CCTGCAGTTTCAATGTCTCACTCTTTTTGACATCTTACCCAGATGTCCCATAGGTAACCAAAATG  
ATCCCTTTCTTGGTCATGATTTCCCTAAGAAATATGCCCTTTGTTTGTGATTCTCCCTAACCTGGTT  
AGTATCATCACCATCTACCTACCAGTTTCTAAGGCTGAAACATTATCATCCTCCATTCCTCTTTTCC  
CTCACCCTTATACCCAGGCATTCACCCAGTCTAGTGATTCACTCTCATGAAGATCTCAGCCAGTTTCA  
CCTCTCTATTCTACTGCCATAGTTAATCTTCCCTCAGACCTAGACTATTACTAGTCTCTCTCTGCCA  
CAAACACACCCCTACCTAATCTATCCTTTACCACCAGAATTATCACGCTAAAAATTACATTCTTGCTTA  
ATATCTGTATTCCAGTTGCCTACGGGATAAAGCCCAAACCTCTTAGCAGAGAATAAAGGCCCTAGCT  
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CCTACAGGCCTAGTAAGTATCTTCTCTCTGTGCTCTGCATACCTCCATTCTTTGTTATGACATCTA  
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GTAGTGTCTGCACAGGCCACTCTATGTCTTTCCATGCTGAAGAAATTCCTTTCCAGGCCATGTCTGTGT  
TCCTCTGCCACACAGGAAATTTTGGCATGTTATCCTCAAGCTGAATGCAGGGTCTGGGTAGTGG  
TCCTCACCTGCTCCAGAGACTTCTCCAGCATTGCCACTCTCCACTCAGGTGATGAAGCTGGATGAGGGA  
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TTTCCATTGTTCTGCCCTCTTACTCCAGGGCTCTCAAGGGAGTGGGGTAGTGAAGGGAGCCCTTT  
CCCAAGTCCCAAGAGCTCTAGTCACATCACTTCTGATACTTCTTTCCACCAGCTGGAAGAAAGAA  
CTTTCAATTTGCTTGAATGAGAAAAATGTTCTTAGAATATTTTGTATTACTCTCTGCTCTGCTATTAT  
GGTAAACAAAATAAAATAATAAAAAAAC
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5' Read Nucleotide Sequence:

>OriGene 5' read for AK092629 unedited
 GCGTTGCAGNATTTTGTATACGATTCACTATAGGGCGGCCGGAATTCGCACGAGGGCTG
 TCTGTGTGCTCTGCCCTTCTCCCTATCCCTTAGCTTAACAGCCACTGCCTTGAGGCAATT
 CAGACATGACTCATAATGTGACCTGCACCAATTGACTCATCTCTGTAGGCTAGAGAGAAC
 TCTTAACAGAAGGTGCCAGACAAGCCCAGGAGACACCAATCTTGCTACCACTGAAGCTGT
 TGTTATTTGGAGTACAAAAGCTTAGCTTTTTTCAGCCGTGCAATATTTCCAAATTATAGG
 ACTCTCAGTCAATTTAGATGGCCACCCACAGGCAAGGAGACAGAACTTCTGTAAACAAA
 CCTTTATTTTCTTTTTCTATTTATGTTTGCATTCCAACCAAGTTCTGAATAAATCTCTTG
 CTTGTAGGACTTGTTGAGTGCAGCAAGAAGGCATCTACACATGCAGTTTCTTACTGGGT
 TGATTCATTTGTTCCACAGGTATTTATTAAGCACATTCTATGAATCAGGCCCTGTGCTAG
 GGGTACTAGAAATAGAGTGTAATAAAAAACCATAGAGTTCTTGCCCTTACAATTTATAA
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 CCCTTGGTGATGGCACCTGTTCCCATGGNCTCACTNCTACCTCAATGATGATGACTTAN
 GAATTTCTAACTTTAACTCCCTACCTCTTTCTGACCTGCAGGTTTCATATGTCTCACTC
 TCTTTTTGACATCTTTACCCAGATGTCCATAAGTACCCTCAAATGATCCCTTTCTTG
 GNCATGAATTTCCCTAAGAAATATGCCCTTTGTTTGTGCTATTCTTCTAACTGGGTTG
 GATCATCACCATTACCTACCAGTTTTCTTAG

3' Read Nucleotide Sequence:

>OriGene 3' read for AK092629 unedited
 CTATGGACCGCGCCGCAATCTAAGATCGAGTTTTTTTTTTTTTTTTTTTTGGGTTGCTTTT
 GTTTTATTTTGTATTTTGGTAACCATAAATGACAAAGCAGAGAGGGATACATAATATTC
 TAAGAACATTTTTTTCATTTCAAGACAAATGAAAGTTCTTTCTTCCAGCTGGTGGTGAAA
 AGAAGTATCATAAGTGATGTGACTAGAGCTTTGGGGTAGCTTGGGAAAGGGCTCCCTT
 CACTACCGCCACTCCCTTGGCAGCCCTGGGAGTCAAGATGGGGCATAACAATGGAATCT
 CGGAATAAGAACAATTGGAGGGACTCACTGTATCACACTGGACCTGTCTGACTCTGGT
 GGGTGCAGTCACTAATCCCGTTTCACTCTGACTGGAGAGTGGCAATGGCTGGAGAAG
 TCTCTGTGCCAGGTGAAGACCACTGCCCGGACCCTGCCTTCCAGCTTGCAGGATGAACAT
 GCTCCAAAATTTACTGTGTGGCCGTGAGGAACACAGACATGGCCTGGAAAGGGAACTTCT
 TCCTCATGGAGAAGACATATTGTGGCCGGTGCAGACACTACCTGAGTGTAAGGACAA
 GATACTGCTTGGCACCACGCGCTAAGTGGTTTTATCAAGCCAAAGGAGATCGGGTGTCCA
 TAAGCGGACCAACCCTCCCAACAATTGCCTTGTCCGGGTCTCTCCTAACTAGGGAGCAT
 ATACGGGGACAATACTGCCGCGGACTTGCCTTCAATCCTTGTGGGACTATTGANACCTC
 TGCATAATGTATGGGAGTTGCTTTGGACCTGTTGCGGATCCACGATTCGACAACCTTTT
 AGGTCATAGGGTAGAACGCATATTTGTTCCAAGTTCCCTCACCGAAGCCCTCATAGAGA
 TTGCGCTCTGTTTCTCACCTTTGTAGAGATTCCCGTTCTAGCTTTGTGAAGTTTTGGA
 TTGCCAGCCCATGGTTGCGGTTCCGGGAGCCTCTAGAATAACCAATTC

Restriction Sites:

NotI-NotI

ACCN:

AK092629

Insert Size:

2500 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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: [AK092629.1](#)

RefSeq Size: 2130 bp

RefSeq ORF: 2130 bp

Locus ID: 83666

Cytogenetics: 3q21.1

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:16809771, PubMed:23230272, PubMed:26479788, PubMed:27796300). Within the complex, enhances DTX3L E3 ligase activity which is further enhanced by PARP9 binding to poly(ADP-ribose) (PubMed:28525742). 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 (PubMed:28525742). During DNA repair, PARP1 recruits PARP9/BAL1-DTX3L complex to DNA damage sites via PARP9 binding to ribosylated PARP1 (PubMed:23230272). 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 (PubMed:23230272, PubMed:28525742). In response to DNA damage, PARP9-DTX3L complex is required for efficient non-homologous end joining (NHEJ); the complex function is negatively modulated by PARP9 activity (PubMed:28525742). Dispensable for B-cell receptor (BCR) assembly through V(D)J recombination and class switch recombination (CSR) (By similarity). 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 (PubMed:27796300).[UniProtKB/Swiss-Prot Function]