

## Product datasheet for **SC206321**

### PARP9 (NM\_031458) Human 3' UTR Clone

#### Product data:

**Product Type:** 3' UTR Clones  
**Product Name:** PARP9 (NM\_031458) Human 3' UTR Clone  
**Vector:** pMirTarget (PS100062)  
**Symbol:** PARP9  
**Synonyms:** ARTD9; BAL; BAL1; MGC:7868  
**ACCN:** NM\_031458  
**Insert Size:** 470 bp  
**Insert Sequence:** >SC206321 3'UTR clone of NM\_031458  
The sequence shown below is from the reference sequence of NM\_031458. The complete sequence of this clone may contain minor differences, such as SNPs.  
**Blue**=Stop Codon **Red**=Cloning site

```
GGCAAGTTGGACGCCCGCAAGATCCGCGAGATTCTCATTAAAGCCAAGAAGGGCGGAAAGATCGCCGTG
TAACAATTGGCAGAGCTCAGAATTCAAGCGATCGCC
GGATTGCAAGTGGCAGCCCTGTTGATTAATCTCTACATCATTTTAAACAGCTGGTATGGCCTTACCTTG
GGTGAACAAACCAATAATGACCATCGATGGCTCAAAGAGTGGCTTGAATATATCCCATGGGTTATCTG
TATGGACTGACTGGGTTATTGAAAGGACTAGCCACATACTAGCATCTTAGTGCCTTTATCTGTCTTTAT
GTCTTGGGGTTGGGGTAGGTAGATACCAAATGAAACACTTTCAGGACCTTCTTCTCTTGCAGTTGTT
CTTTAATCTCCTTTACTAGAGGAGATAAATATTTTGCATATAATGAAGAAATTTTCTAGTATATAACG
CAGGCCTTTTATTTTCTAAAATGATGATAGTATAAAAAATGTTAGGATAACAGAATGATTTTAGATTTTC
CAGAGAATATTATAAAGTGCTTTAGGTATGAAAATAAATCATCTTTGTCTGATTAA
ACGCGTAAGCGGCCCGGCATCTAGATTGCAAGAAAATGACCGACCAAGCGACGCCCAACCTGCCATCA
CGAGATTCGATTCCACCGCCCTTCTATGAAAGG
```

**Restriction Sites:** Sgfl-MluI

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the sequence identifier above as a point of reference. Note that the complete sequence of this clone is largely the same as the reference sequence but may contain minor differences, e.g., single nucleotide polymorphisms (SNPs).

**Components:** The cDNA clone is shipped in a 2-D bar-coded Matrix tube as 10 ug dried plasmid DNA. The package also includes 100 pmols of both the corresponding 5' and 3' vector primers in separate vials.

**RefSeq:** [NM\\_031458.3](#)



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**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]

**Locus ID:**

83666

**MW:**

17.8