

Product datasheet for **RC229018**

PARP9 (NM_001146103) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PARP9 (NM_001146103) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PARP9
Synonyms:	ARTD9; BAL; BAL1; MGC:7868
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC229018 representing NM_001146103
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGACTTTTCCATGGTGCCGGAGCAGCAGCTTACAATGAAAAATCAGAGACTGGTGCTCTTGAGAAAA
 ACTATAGTTGGCAAATCCCATTAACCACAATGACTTCAAAATTTAAAAATAATGAGCGTCAGCTGTG
 TGAAGTCTCCAGAATAAGTTTGGCTGTATCTCTACCCTGGTCTCTCCAGTTCAGGAAGGCAACAGCAAA
 TCTCTGCAAGTGTTCAGAAAAATGCTGACTCCTAGGATAGAGTTATCAGTCTGAAAAGATGACCTCACCA
 CACATGCTGTTGATGCTGTGGTGAATGCAGCCAATGAAGATCTTCTGCATGGGGGAGGCCTGGCCCTGGC
 CCTGGTAAAAGCTGGTGGATTTGAAATCCAAGAAGAGAGCAAACAGTTTGTGGCCAGATATGGTAAAAGTG
 TCAGTGGTGAGATAGCTGTACGGGAGCAGGGAGGCTTCCCTGCAAACAGATCATCCATGCTGTTGGGC
 CTCGGTGGATGGAATGGGATAAACAGGGATGACTGAAAAGCTGCAGAGGGCCATTGTAAGTATTCTGAA
 TTATGTATCTATAAAAAACTCACATTAAGACAGTAGCAATCCAGCCTTGAGCTCTGGGATTTTTCAG
 TTCCCTCTGAATTTGTGTACAAAGACTATTGTAGAGACTATCCGGGTTAGTTTGCAAGGGGAGCCAAATGA
 TGAGTAATTTGAAAGAAATTCACCTGGTGAAGCAATGAGGACCCTACTGTTGCTGCCTTTAAAGCTGCTTC
 AGAATTCATCCTAGGGAAGAGTGAGCTGGGACAAGAAACCACCCCTTCTTTCAATGCAATGGTCGTGAAC
 AACCTGACCCCTCAGATTGTCCAGGGCCACATTGAATGGCAGACGGCAGATGTAATTTGTTAATCTGTAA
 ACCCACATGATATTACAGTTGGACCTGTGGCAAAGTCAATTCTACAACAAGCAGGAGTTGAAATGAAATC
 GGAATTTCTTGCCACAAAGGCTAAACAGTTTCAACGGTCCCAGTTGGTACTGGTCACAAAAGGATTTAAC
 TTGTTCTGTAATATATACCATGTACTGTGGCATTGAGAATTCCTAAACCTCAGATATTAACATG
 CAATGAAGGAGTGTGGAAAAATGCATTGAGCAAAAATAAATCCATTTCTTTCCCTGGCCCTGGGAC
 TGGAAACATGGAATAAAGAAGGAAACAGCAGCAGAGATTTTGTGGATGAAGTTTTAACATTTGCCAAA
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 CATCACAGAAATATCAGCCCAGGAAGGACAGAGTTAGAGATTGAAGGAGCCCGGCTGACCTCATTGAG
 GTGTTATGAACATTGAAGATATGCTTTGTAAGTACAGGAGGAAATGGCAAGGAAAAAGGAGCGAGGCC
 TTTGGCGCTCGTTAGGACAGTGGACTATTCAGCAACAAAAACCCAAGACGAAATGAAAGAAAAATCAT
 ATTTCTGAAATGTCTGTGCCTCCAACCTCAAGAGCTTCTAGATCAAAAAGAAACAGTTTAAAAATGTGGT
 TTGAGGTTCTAAAGGTGGAGAAGATAGACAATGAGGTCCTTATGGCTGCCTTTCAAAGAAAAGAAAA
 TGATGGAAGAAAAACTGCACAGGCAACCTGTGAGCCATAGGCTGTTTCAGCAAGTCCCATACCAAGTCTG
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 TCTATGTGTTGAGGCTGAAGTACTCACAGGCTTCTTCTGCCAGGGACATCCGTTAAATATTGTTCCCCC
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 GTTATTTTTAGTGGCATGCAGGCTATACCTCAGTATTTGTGGACATGCACCCAGGAATATGTACAGTAC
 AAGATTACTCATCAGACCAATGAGACCCTTTGCACAGCATCCTTGGAGGGGATTCGCAAGTGGCAGCCC
 TGTGAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC229018 representing NM_001146103
 Red=Cloning site Green=Tags(s)

MDFSMVAGAAAYNEKSETGALGENYSWQIPINHNDFKILKNNERQLCEVLQNKFGCISTLVSPVQEGNSK
 SLQVFRKMLTPRIELSVWKDDLTTHAVDAVVNAANEDLLHGGGLALALVKAGGFEIQEESKQFVARYGKV
 SAGEIAVTGAGRLPCKQIIHAVGPRWMEWDKQGCTGKLRRAIVSILNYVIYKNTHIKTVAIPALSSGIFQ
 FPLNLCTKTIVETIRVSLQGKPMMSNLKEIHLVSNEDPTVAAFKAASEFILGKSELGQETTPSFNAMVVN
 NLTLQIVQGHIEWQTADVIVNSVNPHTITVGPVAKSILQQAGVEMKSEFLATKAKQFQRSQLVLVTKGFN
 LFCKYIYHVLWHSEFPKPQILKHAMKECLEKCIQNITISISFPALGTGNMEIKKETAAEILFDEVLTFAK
 DHVKHQLTVKFVIFPTDLEIYKAFSSEMAKRSKMLSLNNYSVPQSTREEKRENGLEARSPAINLMGFNVE
 EMYEAHAWIQRILSLQNHIIENNHIYLGRKEHDILSQLQKTSSVSITEIISPGRTELEIEGARADLIE
 VVMNIEDMLCKVQEEMARKKERGLWRSLGQWTIQQKTQDEMKENIIFLKCPVPPTQELLDQKKQFEKCG
 LQVLKVEKIDNEVLMAAFQRKKMMEEKLHRQPVSHRLFQQVPYQFCNVVCRVGFQRMYSTPCDPKYGAG
 IYFTKNLKNLAEKAKKISAADKLIYVFEAEVLTGFFCQGHPLNIVPPPLSPGAIDGHDSVVDNVSSPETF
 VIFSGMQAIPQYLWTCTQEYVQSQDYSSGPMRPFQHPWRGFASGSPVD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-Mlul

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_001146103.2](#)

RefSeq ORF: 2460 bp

Locus ID: 83666

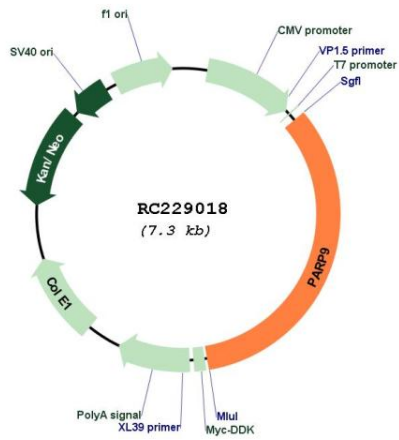
UniProt ID: [Q8IXQ6](#)

Cytogenetics: 3q21.1

MW: 92.1 kDa

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]

Product images:



Circular map for RC229018