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Product datasheet for MC220862

Parp9 (NM_030253) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Parp9 (NM_030253) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Parp9
Synonyms:	ARTD9; AW214463; Bagl; Bal; BC003281; PARP-9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

>MC220862 representing NM_030253
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCTATTACATGGATACATGGGCGGCAGCTCCCGCCGAAAGACCAGCCAACAATTCTCTTGAAGAAC
ATTATAGATGGCAAATTCCCATTAAACACAATGTCTTCGAAATTTTAAAGAGCAATGAGAGTCAGCTATG
TGAAGTCCTCCAAAATAAGTTTGGATGCATCTCTACCCTGAGCTGTCCAACTCTAGCAGGGAGCAGCTCT
CCTGCTCAGAGAGTCTTCAGAAGGACCCTGATCCCTGGGATAGAGTTATCTGTCTGGAAGGATGACCTTA
CCAGACACGTTGTTGATGCTGTGGTGAACGCAGCCAATGAAAACCTTTTGCATGGAAGTGGCCTGGCCGG
AAGCTTGGTGAAAACTGGTGGCTTTGAAATCCAAGAAGAGAGCAAAAGAATCATTGCCAACGTTGGTAAA
ATCTCAGTTGGTGGAATCGCTATCACCGGTGCGGGGAGACTTCCTTGCCATTTGATTATCCATGCGGTTG
GACCTCGGTGGACAGTTACGAACAGCCAGACAGCTATCGAATTACTGAAATTTGCCATTAGGAACATTCT
AGATTATGTCACCAAATATGATCTACGCATTAAGACAGTAGCAATTCCAGCCCTGAGCTCTGGAATTTTC
CAGTTCCCTCTGGATTTGTGTACAAGCATAATTTTAGAAACTATCCGGCTTTATTTCCAAGACAAGCAAA
TGTTCGGTAATTTGAGAGAGATTCATCTGGTGAGCAATGAGGACCCCACTGTTGCGTCCTTTAAATCCGC
CTCAGAAAGCATCCTAGGGAGGGACCTGAGCTCTTGGGGGGGTCCAGAAACTGACCCTGCTTCCACCATG
ACTCTTCGCATCGGCCGGGGCCTGACTCTCCAGATTGTCCAAGGCTGTATTGAAATGCAAACAACAGATG
TAATTGTTAATTCTGGATACATGCAGGATTTTAAATCAGGACGAGTGGCACAGTCGATTCTTAGACAAGC
AGGGGTTGAAATGGAAAAGGAACTTGACAAGGTTAACCTGTCCACAGATTATCAAGAGGTGTGGGTCACA
AAAGGATTTAAATTGTCCTGTCAGTATGTCTTCCATGTGGCATGGCATTCCCAAATCAACAAATACCAGA
TATTGAAAGATGCAATGAAGTCCTGTCTAGAAAAATGCCTTAAACCAGATATAAATTCCATTTCCTTTCC
TGCTCTCGGGACAGGATTGATGGATTTGAAGAAGAGTACAGCAGCTCAGATAATGTTTGAGGAAGTTTTT
GCATTTGCTAAAGAGCACAAGGAAAAAACGCTAACTGTAAAGATTGTGATCTTTCCAGTAGATGTGGAGA
CGTACAAGATTTTTTATGCTGAAATGACAAAAAGGTCCAACGAGCTGAATCTCAGCGGTAATAGTGGTGC
TTTAGCCCTGCAGTGGTCCAGTGGGGAGCAAAGAAGAGGCGGCCTTGAAGCTGGATCTCCTGCCATCAAT
CTCATGGGTGTAAAAGTGGGAGAGATGTGTGAGGCCCAGGAATGGATTGAAAGGTTGCTGGTCTCCCTGG
ACCACCACATCATTGAGAATAATCATATTCTCTATCTTGGGAAAAAAGAGCACGACGTGCTGTCTGAGCT
CCAGACCAGCACAAGAGTCTCCATTTCAGAGACTGTCAGTCCAAGAACGGCCACTTTGGAGATTAAAGGT
CCCCAGGCTGACCTCATTGACGCAGTTATGAGGATTGAATGTATGCTGTGTGACGTTCAGGAAGAAGTGG
CAGGAAAAAGGGAGAAAAATCTTTGGAGCTTGTCAGGACAGGGGACCAACCAGCAAGAAAAACTGGATAA
AATGGAAGAATCGTACACATTTCAACGATACCCAGCATCATTAACTCAGGAACTTCAGGACCGAAAGAAA
CAGTTTGAAAAGTGTGGCTTGTGGGTTGTGCAGGTGGAGCAGATAGACAATAAGGTGCTGCTGGCTGCCT
TCCAAGAGAAGAAGAAAATGATGGAAGAGAGGACGCCAAAGGGATCTGGGAGCCAAAGGTTGTTTCAGCA
GGTCCCACATCAGTTCTGCAATACGGTGTGCAGAGTCGGCTTCCACAGAATGTATTCGACATCCTATAAC
CCAGTTTATGGAGCCGGCATATATTTCACCAAGAGCCTCAAAAATCTAGCAGACAAGGTCAAGAAAACCT
CAAGCACAGACAAGCTAATCTATGTGTTTGAGGCAGAAGTACTCACAGGGTCCTTCTGTCAGGGTAATTC
CTCAAATATCATCCCTCCACCATTGAGTCCTGGGGCCTTAGATGTCAATGACAGCGTAGTTGACAATGTT
TCCAGCCCTGAAACCATTGTTGTTTTTAATGGCATGCAGGCCATGCCCCTGTACTTGTGGACTTGCACAC
AGGATAGGACATTCTCACAGCATCCGATGTGGTCACAGGGCTACTCATCAGGACCAGGAATGGTCTCTTC
GCTGCAGTCCTGGGAATGGGTCTTAAATGGCAGCTCTGTTTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_030253

Insert Size: 2493 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:	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]