

Product datasheet for **MR210399**

Palb2 (BC066140) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Palb2 (BC066140) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Palb2
Synonyms:	4732427B05
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>MR210399 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGAAGAGCTTCCGGGAAGCCCTCAGCTATGCGGAGAAGAAAAGTTGAAGGAAAAGCTAGCATT
TGAAAAAGGAATACAGCAGGACACTTGCTCGACTTCAGCGTGCCAAAAGAGCTGAGAAGGCTAAGA
TAAGAAAAGCCATAGAAGATGGTGTGCCCCAGCCAGAAGCTTCCTCACAGCTAAGCCACTCTGA
AATAAAGGCTTTCCTTGTGACACATTGCAAAGCAACCCTCGGATGAGGAGACTGGAGAAAACATCT
AGATACTTGATGTTGAACCTCAATCCTTAACTGTAACAAGGCAAGAAGTATTACATACACCAAGAG
AGGTGACATTCAAGGACAACCTTTGCATAGCACCAGCAGCCCTGATGGCAAGAAAGAGCAGAACACG
CCGGGACAACAAAGACGCCGTGGGAGAAGTCATCTGTTTACAGGAGAAGGAAGATTATTTGACACT
ATTCTCTGGCGCTCCTTGACTTTGAGTTACCTGATGAAGACTTTGGGCTTCTTAACTTGAAAAATG
AATGTCCTGCTCGGAAAAGTATTGAGTCTCCTGACTCAAAAAGTGGTGGAGAGGCTTCTAGAGAAG
AACCATGCTGCTCGGAGAACTGCAAAGAGATTCGGAGACGGAGGGCTTGAAGAGGAGCTCACTGTT
CACCAGGAGAAGCGTACCGTCCAGGGCCAACTGAGAAGGCAGCCAGGGAGCAAGGACCTTTCTCATC
CATAGTGCTTTTCACTCTGCAGACACTGCTGCGCCTAACGACAGTGGCAGGCCTCCTCCCTCCCTG
TCACCTGCTTTCCCATCTTAGGCATGACTCCAGCTCTTGGCTCCCAAGCAGCCGGTGAGACTCTAT
CTGAAGCTGCACAGCCTTGTCTACATCCCAACCTCCTCTTGGGAGACACAAACAGTCTTGTCAATA
CAGTAAACAGTGAACAGTTCAGCCTGCTACCAAAACCGGACACCAACCTGCAAGCGTCAGGTAGGCA
GGACAACCTGCCTGTGACAGTACTCTGGCCCCAAGCAACACCTACCTGTTGAGTCATTCACTTTCA
GAGAAAATCAGCTTTGTGAAAATGCATGCCTCGAGTTACATGAACATCCACTGAACAGACTGAACTGC
AGATCGCCCTGCTTGTGACAATCTAAACCCAGGAAACCTACAGTTGGTTTACAGATTAAAGAATCCTT
AGTTCTGCTCTGTGGATGTGAGCGCCATGTGGTGGGAAAAGAGCTGGTGTCTAAGGAGCCATGTATCG
TAAGCTGTGAAGATGTAGTTTCTTTGGAAAACCTTGAATTCTCTGCAGTGGGAGAAAAGTTCATACCT
GCACCTTACAGAGGTTCCAGTATTACAAAAGTTCAGTGCCTGATGTTTACAATCTTATATGTGTAGCT
TTGGGAAGTTTGGAAATCAGAGAAATCAGGGCGTTGCTGTGCTCTTCTGGTGTGACAGTAAAAGCAAG
TCCTCCTGAAATCTGGAGATATAAAGCTATGCTTGGCCTGACAAAGCGGAGGCTAGTTAGTAGCACTGG
GACCTTTTGAATCAACAAATACAAATCATGACATTTGCTGACGACGGAAGCAGCAAAGATGAGCAGCTT
TTGATGCCTCCTGATGAGACTGTACTGACTTTTGTGAAGTCCAAGGGACGCAGGAAGCTCTGCTTGGTA
CTACCACTGTGAACAGCATTGTGATCTGGAATTTAAAAACCGGCCAGCTCCTGAAGAAGATGCACATTGA
TGACTCCTACCAGGCTTCGGTCTGTACGGAGCCTATTCTGAGAAGGGGCTCCTGTTTGGTGTGTGAGT
CAACCTTGTGCCAAAGAGAGCCAGGCCCTTGAAGCCCTGTGTTCCAGCTGCTGGTGATTAACCTAAGA
CGGCCAGAGTGTGGGTGTTCTGCTGTGTTCCCTCCTCAGGGGCAGGCTGGAAGGTTCTGGAAGGGGA
TGTGAAAGATCATGTGCGCAGCAGCAGTCTGACTTCTGGGACAATTGCCATTTGGGATTTGCTTCTGGGT
CACTGCACGGCTCTCTCCACCTGTCTGACCAGAGTTGGTCTTTGGTAAATGGTGGGTACAGATT
CTCACTTGCTAGCTGGACAAAAGGATGGAATATATTTATATACCGATACTTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR210399 protein sequence
 Red=Cloning site Green=Tags(s)

MEELSGKPLSYAEKEKLKEKLAFLKKEYSRTLARLQRAKRAEKAKNSKKAIEDGVPQPEASSQLSHSEI
 NKGFPCTLQSNHLDEETGENISQILDVEPQSFNCKQGKEVLHTPRAGDIQGQLLHSTSSPDGKKEQNTL
 PGTTKTPWEKSSVSQEKEDYFDTNLALLDFELPDEDFGLLKLEKLKSCSEKLIESPDSKNCGERLPREG
 NHAALEELQRDSETEGLEEELTVPPGEAYRGPPLRRQPGSKDLSSSIVLFTPADTAAPNDSGRPPPSLC
 SPAFPILGMPALGSQAAGETLSTEAAQPCSTSQPPLLGDNTSLVNNKQCNSACSPKPDNLQASGRQ
 GQPACDSDSGPQATPLPVE SFTFRENQLCGNACLELHEHSTEQTETADRPACDNLNPGNLQVSELKNPS
 SSSCVDSAMWWERAGAKEPCIVTACEDVVSLLWKPLNSLQWEKVHTWHFTEVPVLQIVPVPDVYNLICVA
 LGSLEIREIRALLCSSGDDSEKQVLLKSGDIKAMLGLTKRRLVSSTGTFCNQQIQIMTFADDGSSKDEQL
 LMPPDET VLTFAEVQGTQEALLGTTT VNSIVIWNLKTGQLLKKMHIDDSYQASVCHGAYSEKGLLFVVVS
 QPCAKESQALGSPVFQLLVINPKTAQSVGVLLCSLPQQQAGRFLGKDVKD HVA AAVLTSGTIAIWDLLL
 HCTALLPPVSDQSWSLVKWSGTDSHLLAGQKDGNI F IYRYF

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: BC066140

ORF Size: 2223 bp

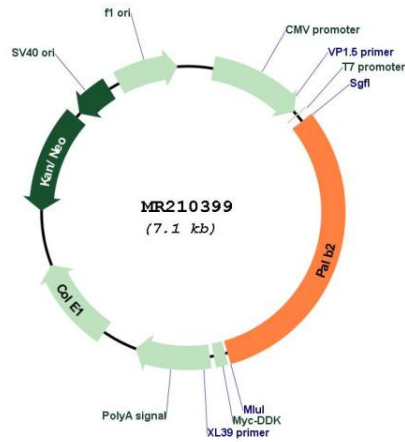
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<ol style="list-style-type: none">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:	<u>BC066140</u> , <u>AAH66140</u>
RefSeq Size:	2568 bp
RefSeq ORF:	2225 bp
Locus ID:	233826
Cytogenetics:	7 F2
MW:	80.5 kDa
Gene Summary:	<p>Plays a critical role in homologous recombination repair (HRR) through its ability to recruit BRCA2 and RAD51 to DNA breaks. Strongly stimulates the DNA strand-invasion activity of RAD51, stabilizes the nucleoprotein filament against a disruptive BRC3-BRC4 polypeptide and helps RAD51 to overcome the suppressive effect of replication protein A (RPA). Functionally cooperates with RAD51AP1 in promoting of D-loop formation by RAD51. Serves as the molecular scaffold in the formation of the BRCA1-PALB2-BRCA2 complex which is essential for homologous recombination. Via its WD repeats is proposed to scaffold a HR complex containing RAD51C and BRCA2 which is thought to play a role in HR-mediated DNA repair. Essential partner of BRCA2 that promotes the localization and stability of BRCA2. Also enables its recombinational repair and checkpoint functions of BRCA2. May act by promoting stable association of BRCA2 with nuclear structures, allowing BRCA2 to escape the effects of proteasome-mediated degradation. Binds DNA with high affinity for D loop, which comprises single-stranded, double-stranded and branched DNA structures. May play a role in the extension step after strand invasion at replication-dependent DNA double-strand breaks; together with BRCA2 is involved in both POLH localization at collapsed replication forks and DNA polymerization activity (By similarity).[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR210399