

## Product datasheet for **MC220917**

### Palb2 (BC066140) Mouse Untagged Clone

#### Product data:

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



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**Fully Sequenced ORF:** >BC066140  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAAGAGCTTTCGGGAAGCCCTCAGCTATGCGGAGAAGAAAAGTTGAAGGAAAAGCTAGCATT  
 TGA AAAAGGAATACAGCAGGACACTTGCTCGACTTCAGCGTGCCAAAAGAGCTGAGAAGGCTAAGA  
 AACT TAAGAAAAGCCATAGAAGATGGTGTGCCCCAGCCAGAAGCTTCTCACAGCTAAGCCACTCTGAATCTATA  
 AATAAAGGCTTTCCTTGTGACACATTGCAAAGCAACCCTCGGATGAGGAGACTGGAGAAAACATCTCTC  
 AGATACTTGATGTTGAACCTCAATCCTTAACTGTAACAAGGCAAGAAGTATTACATACACCAAGAGC  
 AGGTGACATTCAAGGACAACCTTTGCATAGCACCAGCAGCCCTGATGGCAAGAAAGAGCAGAACACGCTT  
 CCGGGGACAACAAAGACGCCGTGGGAGAAGTCATCTGTTTACAGGAGAAGGAAGATTATTTTGACTA  
 ATTCTCTGGCGCTCCTTGACTTTGAGTTACCTGATGAAGACTTTGGGCTTCTAAACTTGAAAAATTGAA  
 GTCTGCTCGGAAAAGCTGATTGAGTCTCCTGACTCAAAAAGCTGTTGGTGAAGGCTTCTAGAGAAGGA  
 AACCATGCTGCTCTGGAGAACTGCAAAGAGATTCGGAGACGGAGGGCTTGAAGAGGAGCTCACTGTTC  
 CACCAGGAGAAGCGTACCGTCCAGGGCCAAACCCTGAGAAGGCAGCCAGGGAGCAAGGACCTTTCTTCATC  
 CATAGTGCTTTTCACTCCTGCAGACACTGCTGCGCCTAACGACAGTGGCAGGCCTCCTCCCTCCCTGTGC  
 TCACCTGCTTTCCCATCTTAGGCATGACTCCAGCTCTTGGCTCCCAAGCAGCCGGTGAGACTCTATCTA  
 CTGAAGCTGCACAGCCTTGCTCTACATCCCAACCTCCTCTCTTGGGAGACACAAACAGTCTTGTCAATA  
 CAGTAAACAGTGAACAGTTCAGCCTGCTACCAAAACCGGACACCAACCTGCAAGCGTCAGGTAGGCAA  
 GGACAACCTGCCTGTGACAGTACTCTGGCCCCAAGCAACACCTACCTGTTGAGTCATTCACTTTCA  
 GAGAAAATCAGCTTTGTGAAAATGCATGCCTCGAGTTACATGAACATTCCTGAAACAGACTGAAACTGC  
 AGATCGCCCTGCTTGTGACAATCTAAACCCAGGAAACCTACAGTTGGTTTCAGAGTTAAAGAATCCTTCC  
 AGTTCTGCTCTGTGGATGTGAGCGCCATGTGGTGGGAAAAGAGCTGGTGCTAAGGAGCCATGATCGTAA  
 CTGCTTGTGAAGATGTAGTTTCTTTGGAAACCTTGAATTCTCTGCAGTGGGAGAAAAGTTCATACCTG  
 GCACCTTACAGAGGTTCCAGTATTACAAATAGTTCAGTGCCTGATGTTACAATCTTATATGTGTAGCT  
 TTGGGAAGTTTGGAAATCAGAGAAATCAGGGCGTTGCTGTGCTCTCTGGTGTGACAGTAAAAGCAAG  
 TCCTCCTGAAATCTGGAGATATAAAGCTATGCTTGGCCTGACAAAGCGGAGGCTAGTTAGTAGCACTGG  
 GACCTTTTGAATCAACAAATACAAATCATGACATTTGCTGACGACGGAAGCAGCAAAGATGAGCAGCTT  
 TTGATGCCTCCTGATGAGACTGTACTGACTTTTGTGAAGTCCAAGGGACGAGGAGCTGCTGGTA  
 CTACCACTGTGAACAGCATTGTGATCTGGAATTTAAAACCGGCCAGCTCCTGAAGAAGATGCACATTGA  
 TGACTCCTACCAGGCTTCGGTCTGTACGGAGCCTATTCTGAGAAGGGGCTCCTGTTTGTGTTGTGAGT  
 CAACCTTGTGCCAAAGAGAGCCAGGCCCTTGAAGCCCTGTGTTCCAGCTGCTGGTGATTAACCTAAGA  
 CGGCCAGAGTGTGGGTGTTCTGCTGTGTTCCCTTCTCAGGGGCAGGCTGGAAGGTTCTGGAAGGGGA  
 TGTGAAAGATCATGTGCGCAGCAGCAGTCTGACTTCTGGGACAATTGCCATTTGGGATTTGCTTCTGGT  
 CACTGCACGGCTCCTCCACCTGTCTGACCAGAGTTGGTCTTTGGTAAATGGTCGGGTACAGATT  
 CTCACTTGCTAGCTGGACAAAAGGATGGAATATATTTATATACCGATACTTTTAA

**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGAT AAGGTTTAA**

**Restriction Sites:** SgfI-MluI  
**ACCN:** BC066140  
**Insert Size:** 2226 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).

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">BC066140</a> , <a href="#">AAH66140</a>
<b>RefSeq Size:</b>	2568 bp
<b>RefSeq ORF:</b>	2225 bp
<b>Locus ID:</b>	233826
<b>Cytogenetics:</b>	7 F2
<b>Gene Summary:</b>	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]