

Product datasheet for **MC228824**

Palb2 (NM_001289844) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Palb2 (NM_001289844) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Palb2
Synonyms:	BC066140
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC228824 representing NM_001289844
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAAGAGCTTCCGGGAAGCCCTCAGCTATGCGGAGAAGAAAAGTTGAAGGAAAAGCTAGCATTTT
 TGA AAAAGGAATACAGCAGGACACTTGCTCGACTTCAGCGTGCCAAAAGAGCTGAGAAGGCTAAGA
 AACT TAAGAAAGCCATAGAAGATGGTGTGCCCCAGCCAGAAGCTTCTCACAGCTAAGCCACTCTGA
 ATCTATA AATAAAGGCTTTCCTTGTGACACATTGCAAAGCAACCCTCGGATGAGGAGACTGGAGAA
 AACATCTCTC AGATACTTGATGTTGAACCTCAATCCTTTAACTGTAACAAGGCAAGAAGTATTAC
 ATACCAAGAGC AGGTGACATTCAAGGACAACCTTTGCATAGCACCAGCAGCCCTGATGGCAAGA
 AAGAGCAGAACACGCTT CCGGGGACAACAAAGACGCCGTGGGAGAAGTCATCTGTTTACAGG
 AGAAGATTATTTTGACACTA ATCTCTGGCGCTCCTTGACTTTGAGTTACCTGATGAAGACTTT
 GGGCTTCTTAAACTTGAAAAATTGAA GTCTGCTCGGAAAACCTGATTGAGTCTCCTGACTCAA
 AAAACTGTGGTGAGAGGCTTCTAGAGAAGGA AACCATGCTGCTCGGAGAACTGCAAAGAGAT
 TCGGAGACGGAGGGCTTGAAGAGGAGCTCACTGTTC CACCAGGAGAAGCGTACCGTCCAGG
 GCCAACCTGAGAAGGCAGCCAGGGAGCAAGGACCTTTCTTCATC CATAGTGCTTTTCACTC
 TGCAGACACTGCTGCGCCTAACGACAGTGGCAGGCCTCCTCCCTCCCTGTGC TCACCTGCT
 TTTCCCATCTTAGGCATGACTCCAGCTCTTGGTCCCAAGCAGCCGGTGAGACTCTATCTA
 CTGAAGCTGCACAGCCTTGCTCTACATCCCAACCTCCTCTCTTGGGAGACACAAACAGTCT
 TGTCAATAA CAGTAAACAGTGCAACAGTTCAGCCTGCTACCAAAACCGGACACCAACCTGCA
 AGCGTCAGGTAGGCAA GGACAACCTGCTGACAGTACTCTGGCCCCAAGCAACACCTACCTG
 TTGAGTCATTCACTTTCA GAGAAAATCAGCTTTGTGAAAATGCATGCCTCGAGTTACATGA
 ACATTCCACTGAACAGACTGAAACTGC AGATCGCCCTGCTTGTGACAATCTAAACCCAGG
 AAACCTACAGTTGGTTTCAGAGTTAAAGAATCCTTCC AGTTCTGCTCTGTGGATGTGAGC
 GCCATGTGGTGGGAAAAGAGCTGGTGCTAAGGAGCCATGATCGTAA CTGCTTGTGAAGAT
 GTAGTTTCTTTGGAAAACCTTGAATTCTCTGCAGTGGGAGAAAAGTTCATACCTG GC
 ACTTTCACAGAGGTTCCAGTATTACAAATAGTTCAGTGCCTGATGTTACAATCTTATATG
 TGTAGCT TTGGGAAGTTGGAAATCAGAGAAATCAGGGCGTTGCTGTGCTCTCTGGT
 GATGACAGTAAAAGCAAG TCCTCCTGAAATCTGGAGATATAAAAGCTATGCTTGGCCT
 GACAAAGCGGAGGCTAGTTAGTAGCACTGG GACCTTTTGAATCAACAAATACAAATCAT
 GACATTTGCTGACGACGGAAGCAGCAAAGATGAACAGCTT TTGATGCCTCCTGATGAG
 ACTGTACTGACTTTTGTGAAGTCCAAGGGACGCAGGAAGCTCTGCTTGGTA CTACCA
 CTGTGAACAGCATTGTGATCTGGAATTTAAAAACCGGCCAGCTCCTGAAGAAGATG
 CACATTGA TGACTCCTACCAGGCTTCGGTCTGTACGGAGCCTATTCTGAGAAGGGGCT
 CCTGTTTGGTGTGTGAGT CAACCTTGTGCCAAAGAGAGCCAGGCCCTTGAAGCCCTG
 GTTCCAGCTGCTGGTGATTAACCTAAGA CGGCCAGAGTGTGGGTGTTCTGCTGTGTT
 CCCTCCTCAGGGGCAGGCTGGAAGGTTCTGGAAGGGGA TGTGAAAGATCATGTGCG
 CAGCAGTCTGACTTCTGGGACAATTGCCATTTGGGATTTGCTTCTGGGT CACTGCA
 CGGCTCCTCCACCTGTCTCTGACCAGAGTTGGTCTTTGGTTAAATGGTCGGGTACAG
 ATTCTCACTTGGCTAGCTGGACAAAAGGATGGAATATATTTATATACCGATACTTT**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001289844

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).

OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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>NM_001289844.1</u> , <u>NP_001276773.1</u>
RefSeq Size:	2661 bp
RefSeq ORF:	2226 bp
Locus ID:	233826
UniProt ID:	<u>Q3U0P1</u>
Cytogenetics:	7 F2
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> <p>Transcript Variant: This variant (4) uses an alternate in-frame splice site in the 5' coding region, compared to variant 1. It encodes isoform 4, which lacks an internal segment and is shorter, compared to isoform 1.</p>