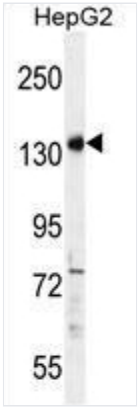
# PALB2 Antibody – Rabbit Polyclonal

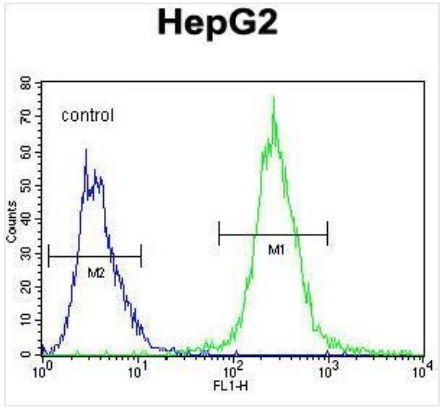
## PRODUCT OVERVIEW

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| **Product Name** | PALB2, Polyclonal Antibody |
| **Full Product Name** | PALB2, ID (PALB2, FANCN, Partner and localizer of BRCA2) (PE) |
| **Product Gene Name** | anti-PALB2 antibody |
| **Product Synonym Names** | PALB2; FANCN; Partner and localizer of BRCA2 |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Host** | Rabbit |
| **Species Reactivity** | Human |
| **Form/Format** | Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with R-Phycoerythrin (PE). |
| **Purity/Purification** | Purified by Protein A and Peptide Affinity Chromatography. |
| **Specificity** | Recognizes human PALB2. |
| **Preparation and Storage** | Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: PE conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap. |
| **Molecular Weight** | 131,295 Da |
| **Chromosome Location** | Chromosome: 16; NC_000016.9 (23614483..23652678, complement). Location: 16p12.2 |
| **OMIM** | phenotype 613348 |
| **3D Structure** | ModBase 3D Structure for Q86YC2 |
| **Immunogen** | KLH-conjugated synthetic peptide mapping to a fragment of residues within amino acids 546-574 in the central region of human PALB2, UniProt Accession #Q86YC2. |
| **Conjugate** | PE |
| **Note** | Preservative Free |
| **Special Handling** | Light sensitive |
| **Product Categories/Family for anti-PALB2 antibody** | Antibodies; Fanconi Proteins |
| **Applications Tested/Suitable for anti-PALB2 antibody** | Western Blot (WB), Flow Cytometry (FC/FACS), FLISA |
| **Application Notes for anti-PALB2 antibody** | Applications are based on unconjugated antibody. |
| **Related Product Information for anti-PALB2 antibody** | This gene encodes a protein that may function in tumor suppression. This protein binds to and colocalizes with the breast cancer 2 early onset protein (BRCA2) in nuclear foci and likely permits the stable intranuclear localization and accumulation of BRCA2. |
| **Product References and Citations for anti-PALB2 antibody** | 1. Dray, E., et al. Nat. Struct. Mol. Biol. 17(10):1255-1259(2010). 2. Buisson, R., et al. Nat. Struct. Mol. Biol. 17(10):1247-1254(2010). 3. Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010). 4. Adank, M.A., et al. Pediatr Blood Cancer 55(4):742-744(2010). 5. Guenard, F., et al. Genet Test Mol Biomarkers 14(4):515-526(2010). |

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| **Other Notes** | Small volumes of anti-PALB2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for PALB2 purchase** | MBS6330614 is an antibody targeting PALB2. Also known as PALB2, ID (PALB2, FANCN, Partner and localizer of BRCA2) (PE). Reactive in Human. Host: Rabbit. |




**Western Blot (WB) of anti-PALB2 antibody**
Western Blot analysis in HepG2 cell line lysates (35ug/lane) usingMBS6013317. This demonstrates that MBS6013317 detected the PALB2 protein (arrow).




**Flow Cytometry (FC/FACS) of anti-PALB2 antibody**
Flow Cytometric analysis of HepG2 cells using MBS6013317 (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PALB2. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 27436910 |
| **NCBI GeneID** | 79728 |
| **NCBI Accession #** | NP_078951.2 |
| **UniProt Primary Accession #** | Q86YC2 |
| **UniProt Secondary Accession #** | Q8N7Y6; Q8ND31; Q9H6W1; A6NIE1 |
| **UniProt Related Accession #** | Q86YC2 |
| **GenBank Nucleotide #** | NM_024675.3 |
| **NCBI Official Full Name** | partner and localizer of BRCA2 |
| **NCBI Official Synonym Full Names** | partner and localizer of BRCA2 |
| **NCBI Official Symbol** | PALB2 |
| **NCBI Official Synonym Symbols** | FANCN; PNCA3; FLJ21816; DKFZp667I166; DKFZp686E1054 |
| **UniProt Protein Name** | Partner and localizer of BRCA2 |
| **Protein Family** | Partner and localizer of BRCA2 |
| **UniProt Gene Name** | PALB2 |
| **UniProt Synonym Gene Names** | FANCN |
| **UniProt Entry Name** | PALB2_HUMAN |
| **NCBI Protein Information** | partner and localizer of BRCA2 |

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| **UniProt Comments for PALB2** | PALB2: Plays a critical role in homologous recombination repair (HRR) through its ability to recruit BRCA2 and RAD51 to DNA breaks. Serves as the molecular scaffold in the formation of the BRCA1-PALB2-BRCA2 complex which is essential for homologous recombination. 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. 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. Defects in PALB2 are a cause of susceptibility to breast cancer (BC). A common malignancy originating from breast epithelial tissue. Breast neoplasms can be distinguished by their histologic pattern. Invasive ductal carcinoma is by far the most common type. Breast cancer is etiologically and genetically heterogeneous. Important genetic factors have been indicated by familial occurrence and bilateral involvement. Mutations at more than one locus can be involved in different families or even in the same case. Breast cancer susceptibility is strongly associated with PALB2 truncating mutations. Conversely, rare missense mutations do not strongly influence breast cancer risk (PubMed:22241545). Defects in PALB2 are the cause of Fanconi anemia complementation group N (FANCN). It is a disorder affecting all bone marrow elements and resulting in anemia, leukopenia and thrombopenia. It is associated with cardiac, renal and limb malformations, dermal pigmentary changes, and a predisposition to the development of malignancies. At the cellular level it is associated with hypersensitivity to DNA-damaging agents, chromosomal instability (increased chromosome breakage) and defective DNA repair. Defects in PALB2 are the cause of pancreatic cancer type 3 (PNCA3). It is a malignant neoplasm of the pancreas. Tumors can arise from both the exocrine and endocrine portions of the pancreas, but 95% of them develop from the exocrine portion, including the ductal epithelium, acinar cells, connective tissue, and lymphatic tissue.<br><br>Protein type: Tumor suppressor<br><br>Chromosomal Location of Human Ortholog: 16p12.2<br><br>Cellular Component: nucleoplasm<br><br>Molecular Function: protein binding; DNA binding<br><br>Biological Process: somitogenesis; organ morphogenesis; mesoderm development; DNA repair; inner cell mass cell proliferation; double-strand break repair via homologous recombination; negative regulation of apoptosis<br><br>Disease: Pancreatic Cancer, Susceptibility To, 3; Breast Cancer; Tracheoesophageal Fistula With Or Without Esophageal Atresia; Fanconi Anemia, Complementation Group N |
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