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PALB2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11688c

Product Information

Application	WB, FC, E
Primary Accession	Q86YC2
Other Accession	NP_078951.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19074
Calculated MW	131295
Antigen Region	546-574

Additional Information

Gene ID	79728
Other Names	Partner and localizer of BRCA2, PALB2, FANCN
Target/Specificity	This PALB2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 546-574 amino acids from the Central region of human PALB2.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PALB2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PALB2
Synonyms	FANCN
Function	Plays a critical role in homologous recombination repair (HRR) through its ability to recruit BRCA2 and RAD51 to DNA breaks (PubMed:16793542,

PubMed:19369211, PubMed:19423707, PubMed:22941656, PubMed:24141787, PubMed:28319063). 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) (PubMed:20871615). Functionally cooperates with RAD51AP1 in promoting of D-loop formation by RAD51 (PubMed:20871616). Serves as the molecular scaffold in the formation of the BRCA1-PALB2-BRCA2 complex which is essential for homologous recombination (PubMed:19369211). 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 (PubMed:24141787). Essential partner of BRCA2 that promotes the localization and stability of BRCA2 (PubMed:16793542). Also enables its recombinational repair and checkpoint functions of BRCA2 (PubMed:16793542). May act by promoting stable association of BRCA2 with nuclear structures, allowing BRCA2 to escape the effects of proteasome-mediated degradation (PubMed:16793542). Binds DNA with high affinity for D loop, which comprises single-stranded, double-stranded and branched DNA structures (PubMed:20871616). 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 (PubMed:24485656).

Cellular Location Nucleus Note=Colocalizes with BRCA2 and BRCA1 in nuclear foci

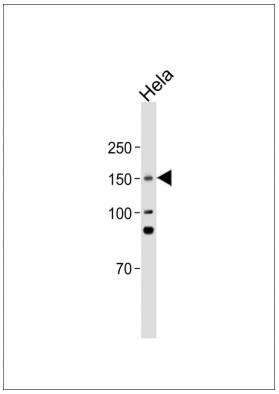
Background

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.

References

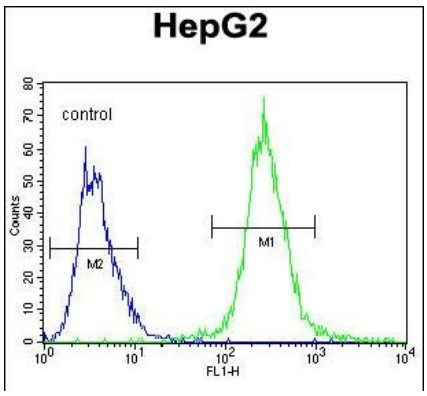
Dray, E., et al. Nat. Struct. Mol. Biol. 17(10):1255-1259(2010)
Buisson, R., et al. Nat. Struct. Mol. Biol. 17(10):1247-1254(2010)
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Adank, M.A., et al. Pediatr Blood Cancer 55(4):742-744(2010)
Guenard, F., et al. Genet Test Mol Biomarkers 14(4):515-526(2010)

Images



All lanes: Anti-PALB2 Antibody (Center) at1:1000 dilution + 293T whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 150 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

PALB2 Antibody (Center) (Cat. #AP11688c) flow cytometric analysis of HepG2 cells (right histogram)



compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.