Datasheet for ABIN670536

anti-PALB2 antibody (AA 1101-1186)

1 Validation

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Overview

Quantity:	100 µL
Target:	PALB2
Binding Specificity:	AA 1101-1186
Reactivity:	Human, Pig
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PALB2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Flow Cytometry (FACS), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human PALB2
Isotype:	IgG
Cross-Reactivity:	Human, Pig
Predicted Reactivity:	Mouse,Rat,Cow
Purification:	Purified by Protein A.

Target Details

Target:	PALB2

Target Details

Alternative Name:	PALB2 (PALB2 Products)
Background:	Synonyms: FANCN, PNCA3, Partner and localizer of BRCA2, PALB2 Background: 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.
Gene ID:	79728
UniProt:	Q86YC2
Pathways:	DNA Damage Repair

Application Details

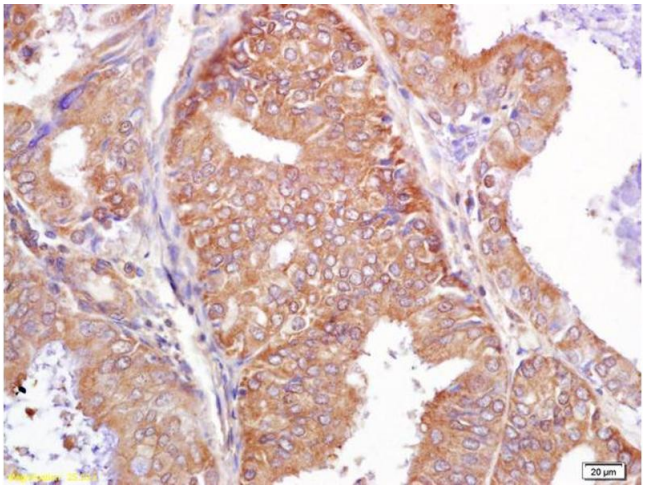
Application Notes:	WB 1:300-5000
	ELISA 1:500-1000
	FCM 1:20-100
	IHC-P 1:200-400
	IHC-F 1:100-500
	IF(IHC-P) 1:50-200
	IF(IHC-F) 1:50-200
	IF(ICC) 1:50-200

Restrictions:	For Research Use only

Handling

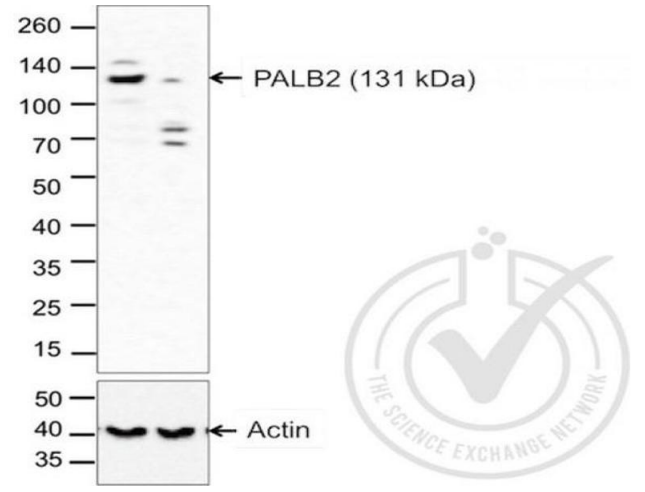
Format:	Liquid
Concentration:	1 µg/µL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

Validation report #029749 for Western Blotting (WB)



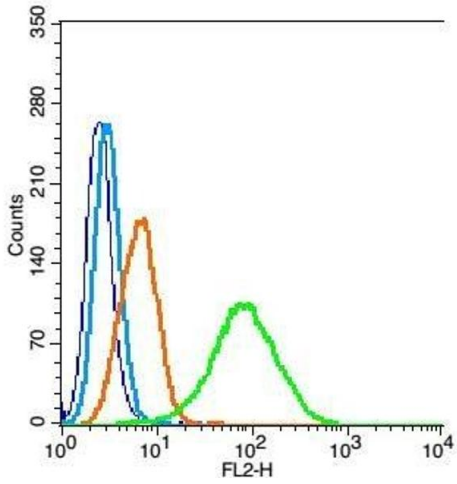
Immunohistochemistry

Image 1. Formalin-fixed and paraffin embedded human breast carcinoma labeled with Rabbit Anti PALB2 Polyclonal Antibody, Unconjugated (ABIN670536) at 1:200 followed by conjugation to the secondary antibody and DAB staining



Western Blotting

Image 2. Images provided by the Independent Validation Program (badge number 29749). Lane 1: A549 cell extract Lane 2: c6/36 mosquito cell extract (non-reactivespecies) probed with Rabbit Anti-PALB2 Polyclonal Antibody, Unconjugated at 1:500 overnight at 4˚C. Followed by conjugation to secondary antibody at 1:20000 for 60 min at 26˚C.



Flow Cytometry

Image 3. HeLa cells probed with PALB2 Polyclonal Antibody, Unconjugated at 1:100 for 30 minutes followed by incubation with a conjugated secondary (PE Conjugated) (green) for 30 minutes compared to control cells (blue), secondary only (light blue) and isotype control (orange).

Successfully validated (Western Blotting (WB))

by Alamo Laboratories Inc

Report Number: 029749

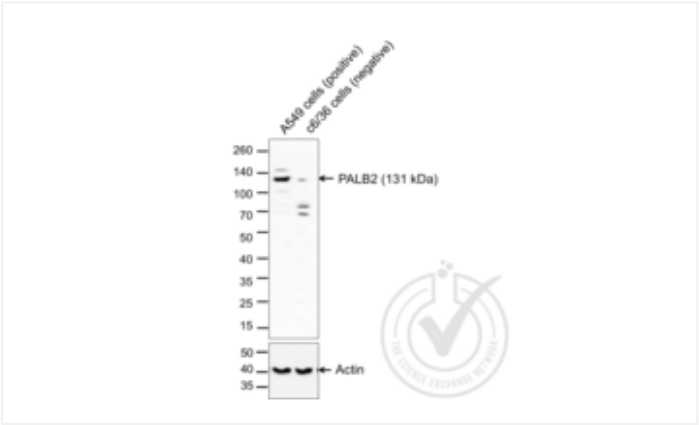
Date: Jul 01 2014

Lot Number:	120510
Method validated:	Western Blotting (WB)
Positive Control:	A549 cell extract
Negative Control:	c6/36 mosquito cell extract (non-reactive species)
Notes:	A single strong band was observed in the positive control at the correct molecular weight. Several faint bands appeared in the negative control, but they were much less intense than the positive control band.
Primary Antibody:	- Antigen: Partner and Localizer of BRCA2 (PALB2) (1:500 dilution) - Catalog number: ABIN670536 - Supplier: Bioss - Supplier catalog number: bs-0588R - Lot number: 120510
Secondary Antibody:	- Antibody: Goat Anti-Rabbit IgG (H + L)-HRP Conjugate (1:20,000 dilution) - Supplier: Bio-Rad - Catalog number: #170-6515 - Lot number: L170-6515
Controls:	• Positive control: A549 cell extract • Negative control: c6/36 Mosquito cell extract
Protocol:	• 1. Total protein extracts were boiled in 1X SDS Sample Buffer containing 1% SDS and 1.25% β-mercaptoethanol at 95°C for 5 min prior to loading. • 2. 35 µg of boiled extracts were loaded and resolved on 8-16% SDS-polyacrylamide gel. • 3. The Thermo Scientific - Spectra Multicolor Broad Range (Cat # 26634) were used as molecular mass markers. • 4. Proteins were then transferred onto PVDF membrane by wet transfer and protein transfer was confirmed with Ponceau-S staining. • 5. The PVDF membrane was incubated with 25 mL of blocking buffer [Tris Buffered Saline, pH 7.4 plus 0.1% TW20 (TBST)] containing 5% (W/V) BSA at room temperature for 1 h. • 6. The membrane was rinsed with TBST once. • 7. The membrane was immersed with the protein side up in the primary antibody solution (anti-PALB2; 1:500) in TBST containing 5% (W/V) BSA and incubated for 16 h at 4°C. • 8. The membrane was rinsed in TBST thrice for 5 min each. • 9. The membrane was incubated in the HRP-conjugated secondary antibody solution (Goat anti-rabbit IgG-HRP; 1:20,000) in TBST containing 5% (W/V) BSA and incubated for 1 h at room temperature (~26°C) with gentle agitation.

- 10. The membrane was rinsed thrice TBST thrice for 5 min each.
- 11. The membrane was rinsed in TBS twice for 30 s each.
- 12. Signals were detected with ECL-2 Substrate. The blot was scanned for 300 s.
- 13. The membrane was rinsed three times TBST.
- 14. Incubated in Acidic Glycine Stripping Buffer at room temperature with gentle agitation for 3 times, 10 min each.
- 15. The membrane was washed in TBST 2 times for 10 min each.
- 16. Repeated Steps 5-12 with the loading control antibody (anti-Actin; 1:6,000) and its matching secondary antibody (Goat anti-rabbit IgG-HRP; 1:20,000).

Experimental Notes:	- No challenges noted.

Image for Validation report #029749



Validation image no. 1 for anti-Partner and Localizer of BRCA2 (PALB2) (AA 1101-1186) antibody (ABIN670536)

Figure 1. Western blot of lysates from A549 cells (Lane 1) and c6/36 cells (Lane 2) probed with anti-PALB2 (upper panel) or with anti-Actin for loading control (lower panel).