Datasheet for ABIN673434

anti-BRCA2 antibody (AA 21-130)

1 Validation

2 Images

Go to Product page

Overview

Quantity:	100 µL
Target:	BRCA2
Binding Specificity:	AA 21-130
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This BRCA2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human BRCA2
Isotype:	IgG
Cross-Reactivity:	Human
Predicted Reactivity:	Mouse,Rat,Dog,Cow,Horse,Chicken,Rabbit
Purification:	Purified by Protein A.

Target Details

Target:	BRCA2

Target Details

Alternative Name:	BRCA2 (BRCA2 Products)
Background:	Synonyms: FAD, FACD, FAD1, GLM3, BRCC2, FANCD, PNCA2, FANCD1, BROVCA2, Breast cancer type 2 susceptibility protein, Fanconi anemia group D1 protein, BRCA2 Background: Involved in double-strand break repair and/or homologous recombination. Binds RAD51 and potentiates recombinational DNA repair by promoting assembly of RAD51 onto single-stranded DNA (ssDNA). Acts by targeting RAD51 to ssDNA over double-stranded DNA, enabling RAD51 to displace replication protein-A (RPA) from ssDNA and stabilizing RAD51-ssDNA filaments by blocking ATP hydrolysis. Part of a PALB2-scaffolded HR complex containing RAD51C and which is thought to play a role in DNA repair by HR. May participate in S phase checkpoint activation. Binds selectively to ssDNA, and to ssDNA in tailed duplexes and replication fork structures. May play a role in the extension step after strand invasion at replication-dependent DNA double-strand breaks, together with PALB2 is involved in both POLH localization at collapsed replication forks and DNA polymerization activity. In concert with NPM1, regulates centrosome duplication. Interacts with the TREX-2 complex (transcription and export complex 2) subunits PCID2 and DSS1, and is required to prevent R-loop-associated DNA damage and thus transcription-associated genomic instability. Silencing of BRCA2 promotes R-loop accumulation at actively transcribed genes in replicating and non-replicating cells, suggesting that BRCA2 mediates the control of R-loop associated genomic instability, independently of its known role in homologous recombination (PubMed:24896180).
Gene ID:	675
UniProt:	P51587
Pathways:	DNA Damage Repair, M Phase, Maintenance of Protein Location

Application Details

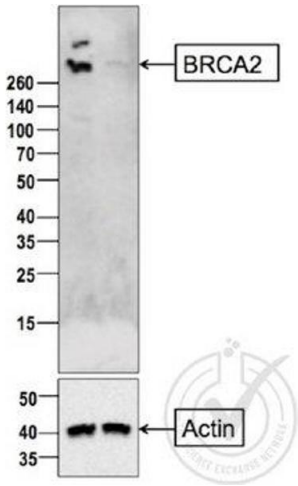
Application Notes:	WB 1:300-5000
	ELISA 1:500-1000
	IHC-P 1:200-400
	IHC-F 1:100-500
	IF(IHC-P) 1:50-200
	IF(IHC-F) 1:50-200
	IF(ICC) 1:50-200

Restrictions:	For Research Use only

Handling

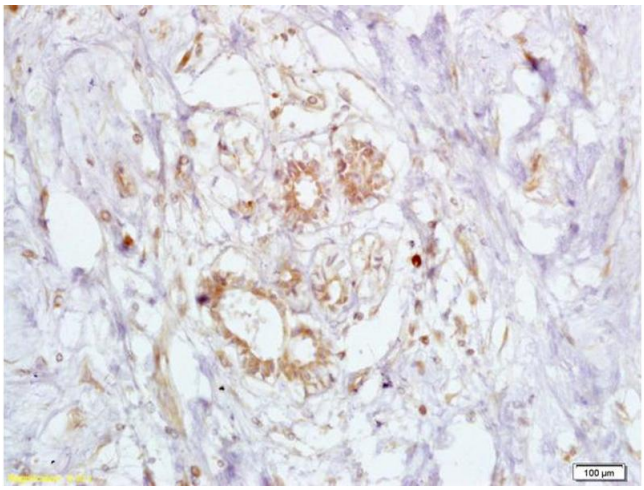
Format:	Liquid
Concentration:	1 µg/µL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment: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

Images



Western Blotting

Image 1. Image provided by the Independent Validation Program badge 29807.Lane 1: MCF7 cell lysate Lane 2:CAPAN1 cell lysates probed with Rabbit Anti-BRCA2 Polyclonal Antibody, Unconjugated at 1:200 for 10 hours at 4˚C. Followed by conjugation to secondary antibody at 1:10000 for 60 min at 37˚C.



Immunohistochemistry

Image 2. Formalin-fixed and paraffin embedded human breast carcinoma labeled Anti-BRCA2 Polyclonal Antibody, Unconjugated (ABIN673434) at 1:200, followed by conjugation to the secondary antibody and DAB staining

Validation report #029807 for Western Blotting (WB)

Successfully validated (Western Blotting (WB))

by Alamo Laboratories Inc

Report Number: 029807

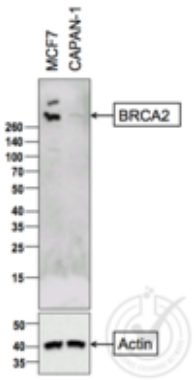
Date: Aug 26 2014

Lot Number:	101020
Method validated:	Western Blotting (WB)
Positive Control:	MCF7 cells
Negative Control:	[CAPAN1 cells] (http://www.pnas.org/content/98/15/8644.full.pdf)
Notes:	A strong band was observed in the positive control sample at the correct molecular weight. No bands were observed in the negative control sample.
Primary Antibody:	- Antigen: Breast Cancer 2, Early Onset (BRCA2) - Catalog number: ABIN673434 - Supplier: Bioss - Supplier catalog number: bs-1210R - Lot number: 101020 - Antibody Dilution: 1:200
Secondary Antibody:	- Antigen: Goat Anti-Rabbit IgG (H + L)-HRP Conjugate - Supplier: Bio-Rad - Catalog number: #170-6515 - Lot number: L170-6515 - Antibody Dilution: 1:10,000
Controls:	• Positive control: MCF7 cells • Negative control: CAPAN1 cells
Protocol:	• 1. The cell extracts were heated at 95°C for 5 minutes in 1X SDS Sample Buffer containing 1% SDS and 1.25% β-mercaptoethanol. • 2. 15 µl of heated culture-media 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 hour. • 6. The membrane was rinsed with TBST once. • 7. The membrane was immersed with the protein side up in the primary antibody solution in TBST containing 5% (W/V) BSA and incubated for 10 hours at 4°C. • 8. The membrane was rinsed in TBST thrice for 5 minutes each. • 9. The membrane was incubated in the HRP-conjugated secondary antibody solution in TBST containing 5% (W/V) BSA and incubated for 1 hour at room temperature (~26°C) with gentle agitation. • 10. The membrane was rinsed thrice TBST thrice for 5 minutes each.

- 11. The membrane was rinsed in TBS twice for 30 seconds each.
- 12. Signals were detected with ECL-2 Substrate. The blot was scanned for 5 minutes.
- 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 minutes each.
- 15. The membrane was washed in TBST 2 times for 10 minutes each.
- 16. Repeated Steps 5-12 with the loading control antibody (for Anti-actin) and its matching secondary antibody.

Experimental Notes:	- No experimental challenges noted.

Image for Validation report #029807



Validation image no. 1 for anti-Breast Cancer 2, Early Onset (BRCA2) (AA 21-130) antibody (ABIN673434)

Figure 1: Western Blot for BRCA2. Arrowhead indicates the expected molecular weight of ~384 kDa.