

**BRCC45 / BRE Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS13645****Specification**

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**BRCC45 / BRE Antibody - Product Information**

Application	IF, WB, IHC
Primary Accession	<a href="#">Q9NXR7</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	44kDa KDa

**BRCC45 / BRE Antibody - Additional Information****Gene ID** 9577**Other Names**

BRCA1-A complex subunit BRE, BRCA1/BRCA2-containing complex subunit 45, Brain and reproductive organ-expressed protein, BRE (<a href="http://www.genenames.org/cgi-bin/gene\_symbol\_report?hgnc\_id=1106" target="\_blank">HGNC:1106</a>), BRCC45

**Target/Specificity**

Human and mouse BRE. Predicted cross-reactivity based on amino acid sequence homology: mouse (99%), rat (98%), bovine (99%), zebrafish (85%).

**Reconstitution & Storage**

Aliquot and store at -20°C. Minimize freezing and thawing.

**Precautions**

BRCC45 / BRE Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**BRCC45 / BRE Antibody - Protein Information****Name** BABAM2 ([HGNC:1106](#))**Synonyms** BRCC45, BRE**Function**

Component of the BRCA1-A complex, a complex that specifically recognizes 'Lys-63'-linked ubiquitinated histones H2A and H2AX at DNA lesions sites, leading to target the BRCA1-BARD1 heterodimer to sites of DNA damage at double-strand breaks (DSBs). The BRCA1-A complex also possesses deubiquitinase activity that specifically removes 'Lys-63'- linked ubiquitin on histones H2A and H2AX (PubMed:<a href="http://www.uniprot.org/citations/17525341" target="\_blank">17525341</a>, PubMed:<a href="http://www.uniprot.org/citations/19261746" target="\_blank">19261746</a>, PubMed:<a href="http://www.uniprot.org/citations/19261749" target="\_blank">19261749</a>).

target="\_blank">19261749</a>, PubMed:<a href="http://www.uniprot.org/citations/19261748" target="\_blank">19261748</a>). In the BRCA1-A complex, it acts as an adapter that bridges the interaction between BABAM1/NBA1 and the rest of the complex, thereby being required for the complex integrity and modulating the E3 ubiquitin ligase activity of the BRCA1-BARD1 heterodimer (PubMed:<a href="http://www.uniprot.org/citations/21282113" target="\_blank">21282113</a>, PubMed:<a href="http://www.uniprot.org/citations/19261748" target="\_blank">19261748</a>). Component of the BRISC complex, a multiprotein complex that specifically cleaves 'Lys-63'-linked ubiquitin in various substrates (PubMed:<a href="http://www.uniprot.org/citations/19214193" target="\_blank">19214193</a>, PubMed:<a href="http://www.uniprot.org/citations/24075985" target="\_blank">24075985</a>, PubMed:<a href="http://www.uniprot.org/citations/25283148" target="\_blank">25283148</a>, PubMed:<a href="http://www.uniprot.org/citations/26195665" target="\_blank">26195665</a>). Within the BRISC complex, acts as an adapter that bridges the interaction between BABAM1/NBA1 and the rest of the complex, thereby being required for the complex integrity (PubMed:<a href="http://www.uniprot.org/citations/21282113" target="\_blank">21282113</a>). The BRISC complex is required for normal mitotic spindle assembly and microtubule attachment to kinetochores via its role in deubiquitinating NUMA1 (PubMed:<a href="http://www.uniprot.org/citations/26195665" target="\_blank">26195665</a>). The BRISC complex plays a role in interferon signaling via its role in the deubiquitination of the interferon receptor IFNAR1; deubiquitination increases IFNAR1 activity by enhancing its stability and cell surface expression (PubMed:<a href="http://www.uniprot.org/citations/24075985" target="\_blank">24075985</a>). Down-regulates the response to bacterial lipopolysaccharide (LPS) via its role in IFNAR1 deubiquitination (PubMed:<a href="http://www.uniprot.org/citations/24075985" target="\_blank">24075985</a>). May play a role in homeostasis or cellular differentiation in cells of neural, epithelial and germline origins. May also act as a death receptor- associated anti-apoptotic protein, which inhibits the mitochondrial apoptotic pathway. May regulate TNF-alpha signaling through its interactions with TNFRSF1A; however these effects may be indirect (PubMed:<a href="http://www.uniprot.org/citations/15465831" target="\_blank">15465831</a>).

#### Cellular Location

Cytoplasm. Nucleus Note=Localizes at sites of DNA damage at double-strand breaks (DSBs)

#### Tissue Location

Expressed in all cell lines examined. Highly expressed in placenta.

#### Volume

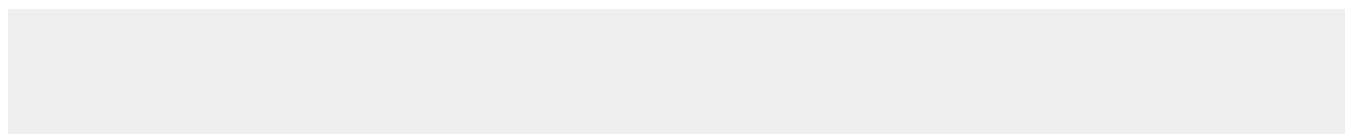
50 µl

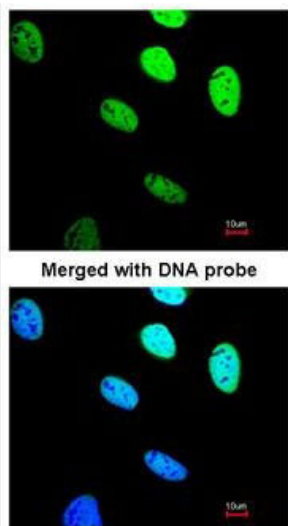
### BRCC45 / BRE Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

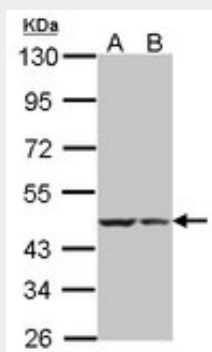
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### BRCC45 / BRE Antibody - Images

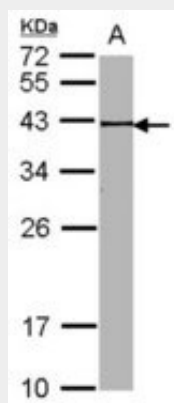




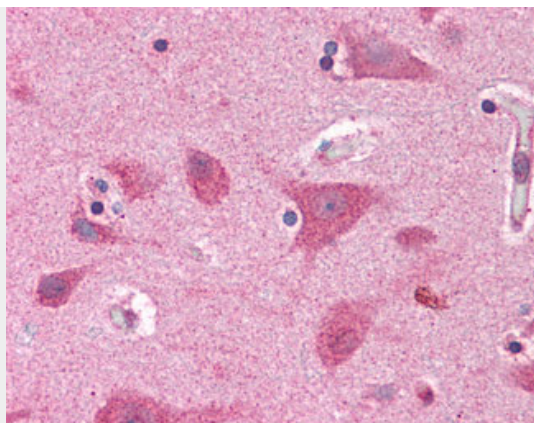
Immunofluorescence of paraformaldehyde-fixed HeLa, using BRE antibody at 1:200 dilution.



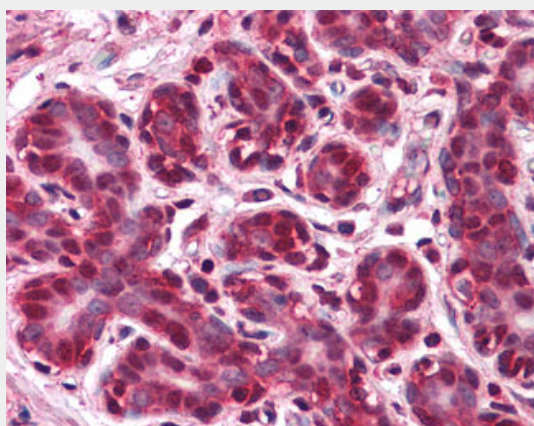
Sample(30 g of whole cell lysate).



Sample (30 ug of whole cell lysate).



Anti-BRE antibody IHC of human brain, cortex.



Anti-BRE antibody IHC of human breast.

#### **BRCC45 / BRE Antibody - Background**

Component of the BRCA1-A complex, a complex that specifically recognizes 'Lys-63'-linked ubiquitinated histones H2A and H2AX at DNA lesions sites, leading to target the BRCA1-BARD1 heterodimer to sites of DNA damage at double-strand breaks (DSBs). The BRCA1-A complex also possesses deubiquitinase activity that specifically removes 'Lys-63'-linked ubiquitin on histones H2A and H2AX. In the BRCA1-A complex, it acts as an adapter that bridges the interaction between BABAM1/NBA1 and the rest of the complex, thereby being required for the complex integrity and modulating the E3 ubiquitin ligase activity of the BRCA1-BARD1 heterodimer. Probably also plays a role as a component of the BRISC complex, a multiprotein complex that specifically cleaves 'Lys-63'-linked ubiquitin. May play a role in homeostasis or cellular differentiation in cells of neural, epithelial and germline origins. May also act as a death receptor-associated anti-apoptotic protein, which inhibits the mitochondrial apoptotic pathway. May regulate TNF-alpha signaling through its interactions with TNFRSF1A; however these effects may be indirect.

#### **BRCC45 / BRE Antibody - References**

Li L.,et al.Biochem. Biophys. Res. Commun. 206:764-774(1995).  
Ching A.K.K.,et al.Biochem. Biophys. Res. Commun. 288:535-545(2001).  
Dong Y.,et al.Mol. Cell 12:1087-1099(2003).  
Keeton K.R.,et al.Submitted (JUL-1997) to the EMBL/GenBank/DDBJ databases.  
Ota T.,et al.Nat. Genet. 36:40-45(2004).