

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

BRCC45 / BRE Antibody - Product Information

Application	IF, WB, IHC
Primary Accession	Q9NXR7
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 (HGNC:1106), 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:17525341, PubMed:19261746, PubMed:19261749).

target="_blank">19261749, PubMed:19261748). 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:21282113, PubMed:19261748). Component of the BRISC complex, a multiprotein complex that specifically cleaves 'Lys-63'-linked ubiquitin in various substrates (PubMed:19214193, PubMed:24075985, PubMed:25283148, PubMed:26195665). 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:21282113). The BRISC complex is required for normal mitotic spindle assembly and microtubule attachment to kinetochores via its role in deubiquitinating NUMA1 (PubMed:26195665). 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:24075985). Down-regulates the response to bacterial lipopolysaccharide (LPS) via its role in IFNAR1 deubiquitination (PubMed:24075985). 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:15465831).

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

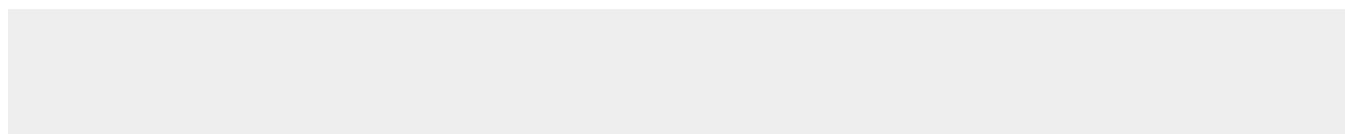
50 µl

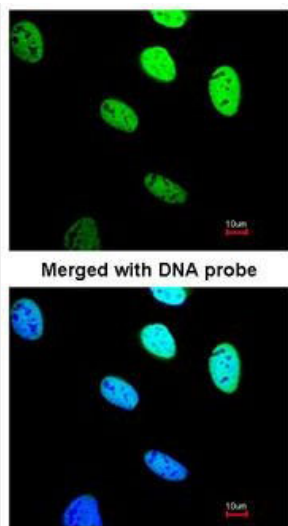
BRCC45 / BRE Antibody - Protocols

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

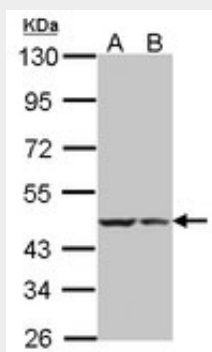
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

BRCC45 / BRE Antibody - Images

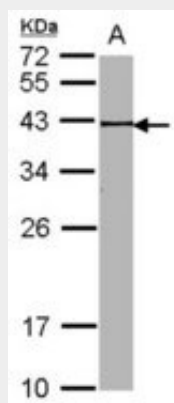




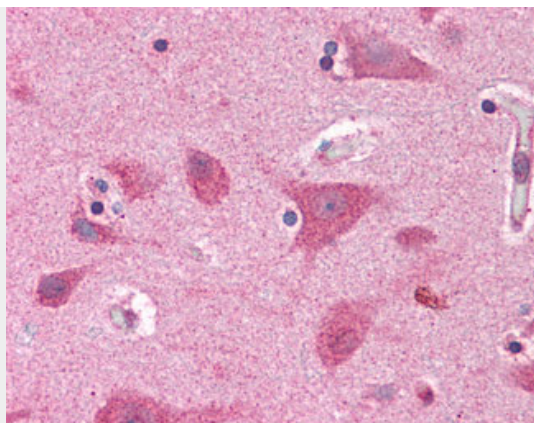
Immunofluorescence of paraformaldehyde-fixed HeLa, using BRE antibody at 1:200 dilution.



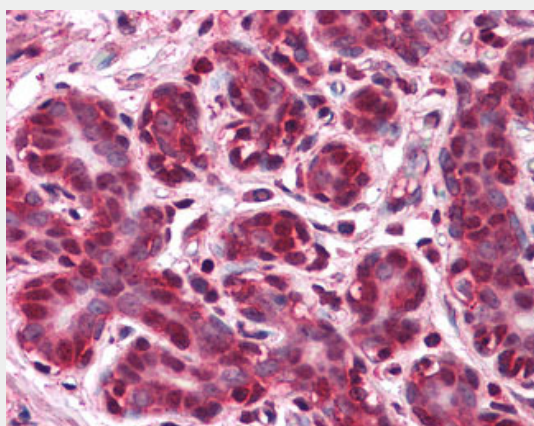
Sample(30 g of whole cell lysate).



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).