

# BRE Antibody

Purified Rabbit Polyclonal Antibody (Pab)  
Catalog # AP50076

## Product Information

---

Application	WB
Primary Accession	<a href="#">Q9NXR7</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	polyclonal
Calculated MW	43552

## 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="#">HGNC:1106</a> ), BRCC45
Dilution	WB~~ 1:1000
Format	Rabbit IgG in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20°C

## Protein Information

---

Name	BABAM2 ( <a href="#">HGNC:1106</a> )
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="#">17525341</a> , PubMed: <a href="#">19261746</a> , PubMed: <a href="#">19261748</a> , PubMed: <a href="#">19261749</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="#">19261748</a> , PubMed: <a href="#">21282113</a> ). Component of the BRISC complex, a multiprotein complex that specifically cleaves 'Lys-63'-linked ubiquitin in various substrates (PubMed: <a href="#">19214193</a> , PubMed: <a href="#">24075985</a> , PubMed: <a href="#">25283148</a> , PubMed: <a href="#">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:[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 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.

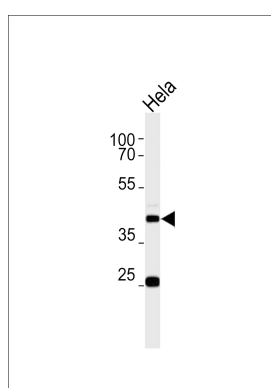
## Background

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.

## 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).

## Images



Western blot analysis of lysate from HeLa cell line, using BRE Antibody(C20711). C20711 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.