

BRCC3 Antibody (N-Term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP21820a

Product Information

Application	WB, E
Primary Accession	P46736
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB53911
Calculated MW	36072

Additional Information

Gene ID	79184
Other Names	Lys-63-specific deubiquitinase BRCC36, 3419-, BRCA1-A complex subunit BRCC36, BRCA1/BRCA2-containing complex subunit 3, BRCA1/BRCA2-containing complex subunit 36, BRISC complex subunit BRCC36, BRCC3, BRCC36, C61A, CXorf53
Target/Specificity	This BRCC3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 18-50 amino acids from human BRCC3.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	BRCC3 Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BRCC3
Synonyms	BRCC36, C6.1A, CXorf53
Function	Metalloprotease that specifically cleaves 'Lys-63'-linked polyubiquitin chains (PubMed: 19214193 , PubMed: 20656690 , PubMed: 24075985 ,

PubMed:[26344097](#)). Does not have activity toward 'Lys- 48'-linked polyubiquitin chains (PubMed:[19214193](#), PubMed:[20656690](#), PubMed:[24075985](#), PubMed:[26344097](#)). 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) (PubMed:[14636569](#), PubMed:[16707425](#), PubMed:[17525341](#), PubMed:[19202061](#), PubMed:[19261746](#), PubMed:[19261748](#), PubMed:[19261749](#)). In the BRCA1-A complex, it specifically removes 'Lys-63'-linked ubiquitin on histones H2A and H2AX, antagonizing the RNF8-dependent ubiquitination at double-strand breaks (DSBs) (PubMed:[20656690](#)). Catalytic subunit of the BRISC complex, a multiprotein complex that specifically cleaves 'Lys-63'-linked ubiquitin in various substrates (PubMed:[20656690](#), PubMed:[24075985](#), PubMed:[26195665](#), PubMed:[26344097](#)). Mediates the specific 'Lys-63'-specific deubiquitination associated with the COP9 signalosome complex (CSN), via the interaction of the BRISC complex with the CSN complex (PubMed:[19214193](#)). The BRISC complex is required for normal mitotic spindle assembly and microtubule attachment to kinetochores via its role in deubiquitinating NUMA1 (PubMed:[26195665](#)). 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](#), PubMed:[26344097](#)). Acts as a regulator of the NLRP3 inflammasome by mediating deubiquitination of NLRP3, leading to NLRP3 inflammasome assembly (By similarity). Down- regulates the response to bacterial lipopolysaccharide (LPS) via its role in IFNAR1 deubiquitination (PubMed:[24075985](#)). Deubiquitinates HDAC1 and PWWP2B leading to their stabilization (By similarity).

Cellular Location

Nucleus. Cytoplasm. Cytoplasm, cytoskeleton, spindle pole Note=Localizes at sites of DNA damage at double-strand breaks (DSBs) (PubMed:20656690, PubMed:26344097). Interaction with ABRAXAS2 retains BRCC3 in the cytoplasm (PubMed:20656690).

Tissue Location

Heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. Aberrantly expressed in the vast majority of breast tumors.

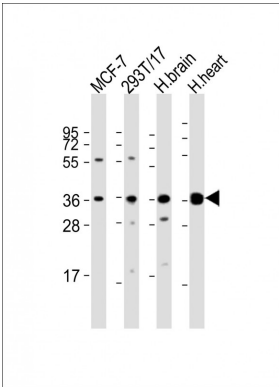
Background

Metalloprotease that specifically cleaves 'Lys-63'- linked polyubiquitin chains. Does not have activity toward 'Lys- 48'-linked polyubiquitin chains. 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). In the BRCA1-A complex, it specifically removes 'Lys-63'-linked ubiquitin on histones H2A and H2AX, antagonizing the RNF8-dependent ubiquitination at double- strand breaks (DSBs). Catalytic subunit of the BRISC complex, a multiprotein complex that specifically cleaves 'Lys-63'-linked ubiquitin in various substrates. Mediates the specific 'Lys-63'- specific deubiquitination associated with the COP9 signalosome complex (CSN), via the interaction of the BRISC complex with the CSN complex.

References

- Kenwrick S.,et al.Hum. Mol. Genet. 1:179-186(1992).
 Fisch P.,et al.Oncogene 8:3271-3276(1993).
 Dong Y.,et al.Mol. Cell 12:1087-1099(2003).
 Ota T.,et al.Nat. Genet. 36:40-45(2004).
 Ross M.T.,et al.Nature 434:325-337(2005).

Images



All lanes : Anti-BRCC3 Antibody (N-Term) at 1:2000 dilution
Lane 1: MCF-7 whole cell lysate
Lane 2: 293T/17 whole cell lysate
Lane 3: human brain lysate
Lane 4: human heart lysate
Lysates/proteins at 20 µg per lane.
Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution.
Predicted band size : 36 kDa
Blocking/Dilution buffer: 5% NFDM/TBST.

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