

BRAT1 Antibody

Rabbit mAb Catalog # AP92990

Product Information

Application WB, IF, FC, ICC, IP

Primary Accession

Reactivity

Clonality

Q6PIG6

Human

Monoclonal

Other Names BAAT1; brat1; C7orf27; RMFSL;

IsotypeRabbit IgGHostRabbitCalculated MW88119

Additional Information

Dilution WB 1:500~1:2000 ICC/IF 1:50~1:200 IP 1:50 FC 1:50

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human BRAT1

Description Required for activation of ATM following ionizing radiation. May act by

regulating dephosphorylation of ATM.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium

azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term.

Avoid freeze / thaw cycle.

Protein Information

Name BRAT1 {ECO:0000303 | PubMed:25657994,

ECO:0000312 | HGNC:HGNC:21701 }

Function Component of a multiprotein complex required for the assembly of the RNA

endonuclease module of the integrator complex (PubMed: 39032489,

PubMed:39032490). Associates with INTS9 and INTS11 in the cytoplasm and blocks the active site of INTS11 to inhibit the endonuclease activity of INTS11

before formation of the full integrator complex (PubMed: 39032489,

PubMed:39032490). Following dissociation of WDR73 of the complex, BRAT1

facilitates the nuclear import of the INTS9-INTS11 heterodimer

(PubMed:39032489). In the nucleus, INTS4 is integrated to the INTS9-INTS11 heterodimer and BRAT1 is released from the mature RNA endonuclease module by inositol hexakisphosphate (InsP6) (PubMed:39032489). BRAT1 is also involved in DNA damage response; activates kinases ATM, SMC1A and PRKDC by modulating their phosphorylation status following ionizing radiation (IR) stress (PubMed:16452482, PubMed:22977523). Plays a role in regulating mitochondrial function and cell proliferation (PubMed:25070371). Required for protein stability of MTOR and MTOR-related proteins, and cell

cycle progress by growth factors (PubMed:<u>25657994</u>).

Cellular Location Nucleus. Cytoplasm Note=Present at double strand breaks (DSBs)following

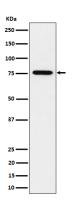
ionizing radiation treatment. The ubiquitinated form localizes in the nucleus

in a NDFIP1- dependent manner.

Tissue Location

Ubiquitously expressed.

Images



Western blot analysis of BRAT1 expression in HeLa cell lysate.

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