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BRAT1 Rabbit mAb

Catalog # AP75165

Product Information

Application	WB, FC, IP
Primary Accession	Q6PJG6
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	88119

Additional Information

Gene ID	221927
Other Names	BRAT1
Dilution	WB~~1:1000-1:5000 FC~~1:10-1:100 IP~~1:20-1:50
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

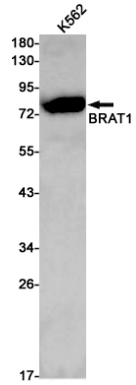
Name	BRAT1 {ECO:0000303|PubMed:25657994, ECO:0000312|HGNC:HGNC:21701}
Function	Component of a multiprotein complex required for the assembly of the RNA endonuclease module of the integrator complex (PubMed:39032489, PubMed:39032490). Associates with INTS9 and INTS11 in the cytoplasm and blocks the active 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:25657994).
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.

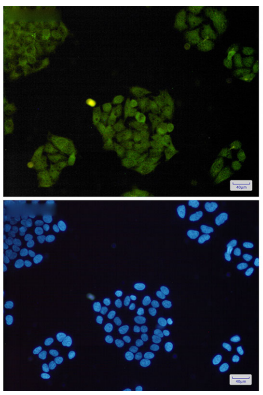
Background

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:25657994).

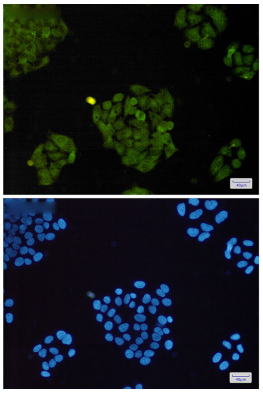
Images

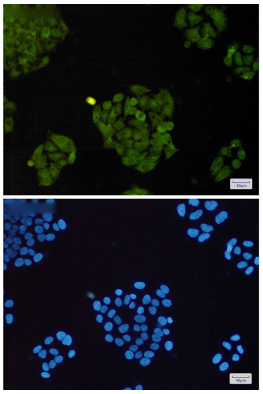


Western blot analysis of BRAT1 in K562 lysates using BRAT1 antibody.



Immunocytochemistry analysis of BRAT1(green) in Hela using BRAT1 antibody,and DAPI(blue)





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