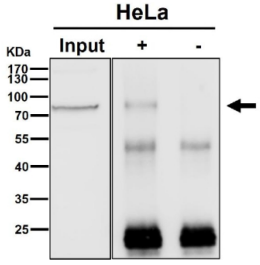
BRAT1 Antibody / BRCA1 associated ATM activator 1 [clone 29B86] (FY12631)

Catalog No.	Formulation	Size
FY12631	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

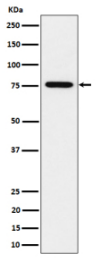
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	29B86
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q6PJG6
Applications	Western blot: 1:500-1:2000 Immunocytochemistry/Immunofluorescence: 1:50-1:200 Immunoprecipitation: 1:50 Flow Cytometry: 1:50
Limitations	This BRAT1 antibody is available for research use only.



Immunoprecipitation analysis using the antibody at 1:50 dilution. Western blot probed with anti-BRAT1 shows a major band at ~75 kDa, lower than the predicted ~88 kDa, consistent with the known anomalous migration of BRAT1 due to its compact structure and partial N-terminal processing.



Western blot analysis of BRAT1 expression in human HeLa cell lysate probed with anti-BRAT1 antibody shows a major band at ~75 kDa, lower than the predicted ~88 kDa, consistent with the known anomalous migration of BRAT1 due to its compact structure and partial N-terminal processing.

Description

BRAT1 antibody detects BRCA1 associated ATM activator 1, a protein encoded by the BRAT1 gene. BRAT1 was originally identified as a BRCA1 binding partner and functions in DNA damage response, cell cycle regulation, and mitochondrial homeostasis. It contributes to ATM kinase activation, linking DNA double strand break recognition to checkpoint signaling and repair pathways.

BRAT1 antibody is widely used in DNA damage research, cancer biology, and neurology. Mutations in BRAT1 cause autosomal recessive neurodevelopmental disorders characterized by seizures, microcephaly, and developmental delay. By detecting BRAT1, researchers can explore how DNA damage response proteins maintain genomic stability and neuronal health.

Western blot assays identify BRAT1 protein bands in nuclear and mitochondrial extracts. Immunohistochemistry highlights expression in proliferative and neural tissues, while immunofluorescence reveals nuclear and cytoplasmic localization. These methods provide robust tools for studying BRAT1 distribution and function.

BRAT1 interacts with BRCA1, ATM, and DNA-PKcs, integrating multiple DNA repair pathways. Dysregulation of BRAT1 activity contributes to defective checkpoint signaling, apoptosis, and impaired mitochondrial function. In cancer research, BRAT1 has been linked to tumor suppression, but context-dependent roles suggest complex regulation. By applying BRAT1 antibody, scientists can study its roles in DNA repair, tumorigenesis, and neurological disease.

BRAT1 antibody from NSJ Bioreagents provides strong specificity for studying BRAT1 function in DNA damage response and mitochondrial biology. Its reliable performance supports accurate detection across experimental systems.

Application Notes

Optimal dilution of the BRAT1 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human BRAT1 was used as the immunogen for the BRAT1 antibody.

Storage

Store the BRAT1 antibody at -20oC.

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