

Anti-Phospho-NBN (Ser343) Antibody (4A426)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	4A426
Purification:	Affinity-chromatography

Applications

Western Blot	
Verified Activity:	-Positive WB detected in Hela whole cell lysate,HepG2 whole cell lysate -All lanes Phospho-NBN antibody at 1.98µg/ml -Secondary: Goat polyclonal to rabbit IgG at 1/50000 dilution -Predicted band size: 95 KDa -Observed band size: 95 KDa
Application:	ELISA,WB
Recommended	WB:1:500-1:5000.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: Human Phospho-NBN (S343)
Antigen Species:	Human
Gene ID:	4683
Uniprot ID:	O60934
Synonyms:	FLJ10155;MGC87362;Nibrin;AT V1;p95 protein of the MRE11/RAD50 complex;Nijmegen breakage syndrome;NBN (p-Ser343);p95;NBS;Cell cycle regulatory protein p95;NBS1;Nijmegen breakage syndrome 1;Nijmegen breakage syndrome protein 1;NBS 1;AT V2;p-NBN (S343);NBN (p-S343);p-NBN (Ser343);ATV;Phospho-NBN (S343)
Biology Area:	Epigenetics and Nuclear Signaling

Research Background

Component of the MRE11-RAD50-NBN (MRN complex) which plays a critical role in the cellular response to DNA damage and the maintenance of chromosome integrity. The complex is involved in double-strand break (DSB) repair, DNA recombination, maintenance of telomere integrity, cell cycle checkpoint control and meiosis. The complex possesses single-strand endonuclease activity and double-strand-specific 3'-5' exonuclease activity, which are provided by MRE11. RAD50 may be required to bind DNA ends and hold them in close proximity. NBN modulate the DNA damage signal sensing by recruiting PI3/PI4-kinase family members ATM, ATR, and probably DNA-PKcs to the DNA damage sites and activating their functions. It can also recruit MRE11 and RAD50 to the proximity of DSBs by

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an interaction with the histone H2AX. NBN also functions in telomere length maintenance by generating the 3' overhang which serves as a primer for telomerase dependent telomere elongation. NBN is a major player in the control of intra-S-phase checkpoint and there is some evidence that NBN is involved in G1 and G2 checkpoints. The roles of NBS1/MRN encompass DNA damage sensor, signal transducer, and effector, which enable cells to maintain DNA integrity and genomic stability. Forms a complex with RBBP8 to link DNA double-strand break sensing to resection. Enhances AKT1 phosphorylation possibly by association with the mTORC2 complex.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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