

Product Name: Phospho-p95/NBS1 (S343) (8Q6) Rabbit Monoclonal Antibody
Catalog #: AMRe05962

For research use only.

Summary

Description	Recombinant rabbit monoclonal antibody
Host	Rabbit
Application	WB, ICC/IF
Reactivity	Human
Conjugation	Unconjugated
Modification	Phosphorylated
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Concentration	0.5mg/ml. The concentration of this product may be batch-dependent.
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000, ICC/IF 1:50-1:100
Molecular Weight	85kDa

Antigen Information

Gene Name	NBN
Alternative Names	Cell cycle regulatory protein P95, NBN, NBS, NIBRIN, NIJMEGEN BREAKAGE syndrome protein 1, p95-NBS1
Gene ID	4683.0
SwissProt ID	O60934
Immunogen	A synthetic phosphopeptide corresponding to residues surrounding Ser343 of human p95 NBS1

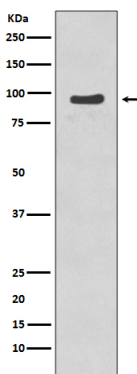
Background

NBS1 is a member of the MRE11/RAD50 double-strand break repair complex. Involved in DNA double-strand break repair and DNA damage-induced checkpoint activation. Mutation results in the Nijmegen breakage syndrome (NBS), an autosomal recessive chromosomal instability syndrome. 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 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.

Research Area

Epigenetics and Nuclear Signaling

Image Data



Western blot analysis of p95/NBS1 phosphorylation expression in Jurkat cell lysate treated with Etoposide.