

Product datasheet

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ARG51561 anti-p95 / NBS1 phospho (Ser343) antibody

Package: 100 μl, 50 μl Store at: -20°C

Summary

Product Description Rabbit Polyclonal antibody recognizes p95 / NBS1 phospho (Ser343)

Tested Reactivity Hu **Tested Application** WB Host Rabbit

Clonality Polyclonal

Isotype IgG

Target Name p95 / NBS1

Human Species

Immunogen Peptide sequence around phosphorylation site of serine 343 (S-L-S(p)-Q-G) derived from Human

p95/NBS1.

Conjugation Un-conjugated

Alternate Names NBS; P95; ATV; NBS1; Nijmegen breakage syndrome protein 1; Nibrin; Cell cycle regulatory protein p95;

AT-V2; AT-V1

Application Instructions

Application table	Application	Dilution
	WB	1:500 - 1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Purification

Form	Liquid

Antibodies were produced by immunizing rabbits with KLH-conjugated synthetic phosphopeptide. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. In

addition, non-phospho specific antibodies were removed by chromatogramphy using non-

phosphopeptide.

Buffer PBS (without Mg2+ and Ca2+, pH 7.4), 150mM NaCl, 0.02% Sodium azide and 50% Glycerol.

Preservative 0.02% Sodium azide

Stabilizer 50% Glycerol

Concentration 1 mg/ml

Storage instruction For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links <u>GeneID: 4683 Human</u>

Swiss-port # O60934 Human

Gene Symbol NBN
Gene Full Name nibrin

Background Mutations in p95/NBS1 gene are associated with Nijmegen breakage syndrome, an autosomal recessive

chromosomal instability syndrome characterized by microcephaly, growth retardation,

immunodeficiency, and cancer predisposition. The encoded protein is a member of the MRE11/RAD50 double-strand break repair complex which consists of 5 proteins. This gene product is thought to be involved in DNA double-strand break repair and DNA damage-induced checkpoint activation.

Function 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 MRE11A. 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. [UniProt]

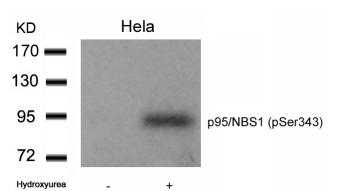
Research Area Cancer antibody; Gene Regulation antibody

Calculated Mw 85 kDa

PTM Phosphorylated by ATM in response of ionizing radiation, and such phosphorylation is responsible intra-

S phase checkpoint control and telomere maintenance.

Images



ARG51561 anti-p95 / NBS1 phospho (Ser343) antibody WB image

Western blot: Extracts from HeLa cells untreated or treated with Hydroxyurea stained with ARG51561 anti-p95 / NBS1 phospho (Ser343) antibody.