Rabbit anti-Human Nibrin Polyclonal Antibody | anti-NBN antibody

Phospho-Nibrin(Ser278) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321250	**Rabbit**	**Human**	**ELISA, Immunocytochemistry, Immunofluorescence, Western Blot**

PRODUCT SYNONYMS

Nibrin; Polyclonal Antibody; Phospho-Nibrin(Ser278) Antibody; AT V1; AT V2; ATV; Cell cycle regulatory protein p95; FLJ10155; MGC87362; Nbn; NBN_HUMAN; NBS 1; NBS; NBS1; Nijmegen breakage syndrome 1 (nibrin); Nijmegen breakage syndrome; Nijmegen breakage syndrome protein 1; p95; p95 protein of the MRE11/RAD50 complex; anti-NBN antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-Nibrin(Ser278) antibody detects endogenous levels of Nibrin only when phosphorylated at Sersine 278
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	672
Applicable Applications for anti-NBN antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Nibrin around the phosphorylation site of Sersine 278
Subcellular Location	Nucleus. Nucleus, PML Body. Chromosome, Telomere. Localizes to discrete nuclear foci after treatment with genotoxic agents.
Tissue Specificity	Ubiquitous. Expressed at high levels in testis.
Conjugation	Unconjugated
Epitope	Phospho Ser278
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES

IF (Immunofluorescence)
AAA321250 staining HuvEc by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

WB (Western Blot)
Western blot analysis on HuvEc cell lysate using Phospho-Nibrin(Ser278) Antibody. The lane on the left is treated with the antigen-specific peptide.

IF (Immunofluorescence)
AAA321250 staining K-562 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-NBN antibody	Description: 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. 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 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. Subunit Structure: Component of the MRN complex composed of two heterodimers RAD50/MRE11 associated with a single NBN (PubMed:9590181, PubMed:9705271, PubMed:11238951). Component of the BASC complex, at least composed of BRCA1, MSH2, MSH6, MLH1, ATM, BLM, RAD50, MRE11 and NBN (PubMed:10783165). Interacts with histone H2AFX this requires phosphorylation of H2AFX on 'Ser-139' (PubMed:12419185). Interacts with HJURP (PubMed:17823411). Interacts with INTS3 (PubMed:19683501). Interacts with KPNA2 (PubMed:16188882). Interacts with TERF2 (PubMed:10888888). Interacts with RBBP8; the interaction links the role of the MRN complex in DNA double-strand break sensing to resection (PubMed:19759395). Interacts with SP100; recruits NBN to PML bodies (PubMed:12470659). Interacts with ATF2 (PubMed:15916964). Interacts with MTOR, MAPKAP1 isoform 2 and RICTOR; indicative for an association with the mTORC2 complex (PubMed:23762398). Interacts with MRNIP (PubMed:27568553). Post-translational Modifications: Phosphorylated by ATM in response of ionizing radiation, and such phosphorylation is responsible intra-S phase checkpoint control and telomere maintenance. Similarity: The FHA and BRCT domains are likely to have a crucial role for both binding to histone H2AFX and for relocalization of MRE11/RAD50 complex to the vicinity of DNA damage.The C-terminal domain contains a MRE11-binding site, and this interaction is required for the nuclear localization of the MRN complex.The EEXXXDDL motif at the C-terminus is required for the interaction with ATM and its recruitment to sites of DNA damage and promote the phosphorylation of ATM substrates, leading to the events of DNA damage response.

NCBI AND UNIPROT INFORMATION

NCBI GI #	67189945
NCBI GeneID	4683
NCBI Accession #	NP_001019859.1
NCBI GenBank Nucleotide #	NM_001024688.2
UniProt Accession #	O60934; O60672; Q32NF7; Q53FM6; Q63HR6; Q7LDM2; B2R626; B2RNC5
Molecular Weight	Observed: 85 kDa Predicted: 85 kDa
NCBI Official Full Name	nibrin isoform 2
NCBI Official Synonym Full Names	nibrin
NCBI Official Symbol	NBN
NCBI Official Synonym Symbols	ATV; NBS; P95; NBS1; AT-V1; AT-V2
NCBI Protein Information	nibrin
UniProt Protein Name	Nibrin
UniProt Gene Name	**NBN**
UniProt Synonym Gene Names	NBS; NBS1; P95

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: https://stage.aaabiotech.com/polyclonal/nibrin-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/321250