

## Nibrin (NBN) Antibody

Catalogue No.:abx000860



Western blot analysis of lysates from wild type (WT) and NBS1/NBS1/NBN knockout (KO) 293T cells, using [KO Validated] NBS1/NBN Antibody at 1/1000 dilution. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) at 1/10000 dilution. Lysates/proteins: 25 µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Exposure time: 90s.

Immunohistochemistry analysis of paraffin-embedded Human lung cancer using [KO Validated] NBS1/NBS1/NBN Antibody at dilution of 1/50 (40x lens). High pressure antigen retrieval performed in 0.01 M Citrate buffer (pH 6.0) prior to IHC staining.

NBN Antibody is a Rabbit Polyclonal antibody against NBN. NBN, also named as NBS, NBS1 and P95, is a 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. 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. 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. Defects in NBN are the cause of Nijmegen breakage syndrome (NBS). Defects in NBN are a cause of genetic susceptibility to breast cancer (BC). Defects in NBN may be associated with aplastic anemia. Defects in NBN might play a role in the pathogenesis of childhood acute lymphoblastic leukemia (ALL). The antibody is specific to NBN.

Target:	Nibrin (NBN)
Clonality:	Polyclonal
Reactivity:	Human, Mouse, Rat
Tested Applications:	ELISA, WB, IHC
Host:	Rabbit
Recommended dilutions	: ELISA: 1 μg/ml, WB: 1/500 - 1/1000, IHC-P: 1/50 - 1/200. Not tested in IHC-F. Optimal dilutions/concentrations should be determined by the end user.
Conjugation:	Unconjugated



Immunogen:	Recombinant fusion protein containing a sequence corresponding to amino acids 520-754 of human NBS1/NBN.
Isotype:	IgG
Form:	Liquid
Purification:	Purified by affinity chromatography.
Storage:	Aliquot and store at -20°C. Avoid repeated freeze/thaw cycles.
UniProt Primary AC:	O60934 ( <u>UniProt</u> , <u>ExPASy</u> )
Gene Symbol:	NBN
GenelD:	4683
NCBI Accession:	NP_002476.2
KEGG:	hsa:4683
String:	9606.ENSP00000265433
Molecular Weight:	Calculated MW: 85 kDa Observed MW: 95/70 kDa
Buffer:	PBS, pH 7.3, containing 0.02% sodium azide, 50% glycerol.
Concentration:	> 0.2 mg/ml
Note:	THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION.