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## NBN / NBS1 Polyclonal antibody

Catalog Number: 55025-1-AP Featured Product 15 Publications

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Basic Information	Catalog Number: 55025-1-AP	GenBank Accession Number NM_002485	: Purification Method: Antigen affinity purification	
	Size: 150ul, Concentration: 240 ug/ml by Nanodrop and 227 ug/ml by Bradford method using BSA as the standard; Source: Rabbit	GenelD (NCBI):	Recommended Dilutions:	
		4683 UNIPROT ID: 060934	WB 1:500-1:2400 IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate	
		Full Name: nibrin	IHC 1:500-1:2000 IF/ICC 1:500-1:2000	
	Isotype: IgG	Calculated MW: 85 kDa	MW:	
		Observed MW: 90-95 kDa		
Applications	Tested Applications: Positive		ive Controls:	
	WB, IHC, IF/ICC, IP, ELISA Cited Applications: WB, IF, IP, CoIP	WB : HeLa cells, human testis tissue		
		IP : H	eLa cells,	
			human stomach tissue,	
	human, mouse, rat	IF/IC	C : A549 cells,	
	Cited Species: human, mouse, rat			
	Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0			
	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 Pl3/Pl4-kinase family members ATM, ATR, and probably DNA-PKcs to the DNA damage signal sensing by recruiting 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. The full-length NBN protein, with an apparent molecular weight of 95 kDa and the two protein found in patient RR with the mutation c.742_743insGG leading to excision of exons 6 and 7 from the NBN mRNA are shown. (PMID: 26265251) The predicted molecular weight of NBN protein (p95) is 85kDa, actually detection result is about 95kDa(PMID: 23762398).			
Background Information	critical role in the cellular response to involved in double-strand break (DSE checkpoint control and meiosis. The of specific 3'-5' exonuclease activity, which by recruiting PI3/PI4-kinase family in activating their functions. NBN also fit serves as a primer for telomerase dep phase checkpoint and there is some of cause of Nijmegen breakage syndrom (BC). Defects in NBN may be associate of childhood acute lymphoblastic leue an apparent molecular weight of 95 k c.657_661del5 (p.K219fsX19) mutatic c.742_743insGG leading to excision of predicted molecular weight of NBN pri-	b DNA damage and the mainter B) repair, DNA recombination, complex possesses single-stra- hich are provided by MRE11A. hembers ATM, ATR, and proba- unctions in telomere length mo- bendent telomere elongation. evidence that NBN is involved he (NBS). Defects in NBN are a ed with aplastic anemia. Defe- kemia (ALL). The antibody is Da and the two protein fragmon, and the 80 kDa protein four- protein four- fexons 6 and 7 from the NBN	enance of chromosome integrity. The complex is maintenance of telomere integrity, cell cycle and endonuclease activity and double-strand- NBN modulate the DNA damage signal sensing bly DNA-PKcs to the DNA damage sites and laintenance by generating the 3' overhang which NBN is a major player in the control of intra-S- in G1 and G2 checkpoints. Defects in NBN are th cause of genetic susceptibility to breast cancer etcs in NBN might play a role in the pathogenesis specific to NBN. The full-length NBN protein, with tents of 26 and 70 kDa arising from the nd in patient RR with the mutation mRNA are shown. (PMID: 26265251) The	
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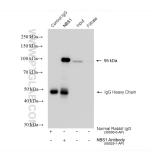
E: proteintech@ptglab.com W: ptglab.com

Group brand and is not available to purchase from any other manufacturer.

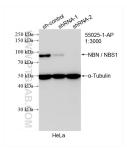
## Selected Validation Data



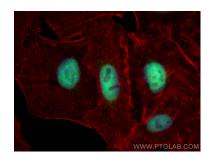
HeLa cells were subjected to SDS PAGE followed by western blot with 55025-1-AP (NBS1 antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours.



IP result of anti-NBN / NBS1 (IP:55025-1-AP, 4ug; Detection:55025-1-AP 1:3000) with HeLa cells lysate 1320 ug.



WB result of NBN / NBS1 antibody (55025-1-AP; 1:3000; incubated at room temperature for 1.5 hours) with sh-Control and sh-NBN / NBS1 transfected HeLa cells.



Immunofluorescent analysis of (4% PFA) fixed A549 cells using NBN / NBS1 antibody (55025-1-AP) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



Immunohistochemical analysis of paraffinembedded human stomach tissue slide using 55025-1-AP (NBN / NBS1 antibody) at dilution of 1:1000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffinembedded human stomach tissue slide using 55025-1-AP (NBN / NBS1 antibody) at dilution of 1:1000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).