

Datasheet for ABIN6255155
anti-Nibrin antibody (pSer278)[Go to Product page](#)

3 Images

Overview

Quantity:	100 µL
Target:	Nibrin (NBN)
Binding Specificity:	pSer278
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Nibrin antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	A synthesized peptide derived from human p95/NBS1 around the phosphorylation site of Ser278.
Isotype:	IgG
Specificity:	Phospho-p95/NBS1 (Ser278) Antibody detects endogenous levels of p95/NBS1 only when phosphorylated at Sersine 278.
Purification:	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.

Target Details

Target:	Nibrin (NBN)
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Target Details

Alternative Name: NBN ([NBN Products](#))

Background: Description: 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.

Gene: NBN

Molecular Weight: 85kDa

Gene ID: 4683

UniProt: [O60934](#)

Pathways: [DNA Damage Repair, Production of Molecular Mediator of Immune Response](#)

Application Details

Application Notes: WB 1:500-1:2000, IF/ICC 1:100-1:500, IHC 1:50-1:200, ELISA(peptide) 1:20000-1:40000

Restrictions: For Research Use only

Handling

Format: Liquid

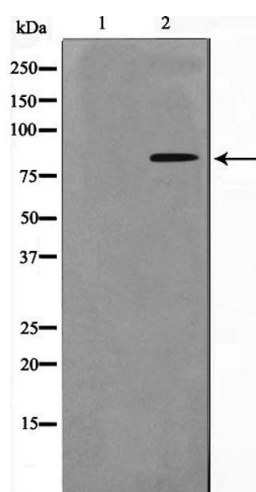
Concentration: 1 mg/mL

Buffer: Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.

Handling

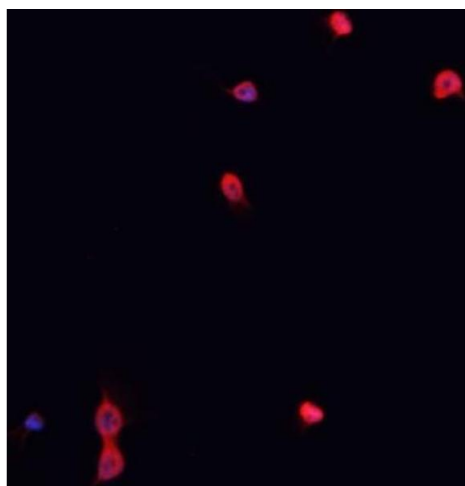
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20 °C. Stable for 12 months from date of receipt.
Expiry Date:	12 months

Images



Western Blotting

Image 1. Western blot analysis on HuvEc cell lysate using Phospho-Nibrin(Ser278) Antibody, *The lane on the left is treated with the antigen-specific peptide.*



Immunofluorescence (fixed cells)

Image 2. ABIN6267023 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°C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody (Cat.# S0006), diluted at 1/600, was used as secondary antibody.



Immunofluorescence (fixed cells)

Image 3. ABIN6267023 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°C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.