abcam

Product datasheet

Anti-p95 NBS1 (phospho S343) antibody [EP178] ab109453

重组 RabMAb

1 References 2 图像

概述

产品名称	Anti-p95 NBS1 (phospho S343)**抗体**[EP178]
描述	**兔单克隆抗体**[EP178] to p95 NBS1 (phospho S343)
宿主	Rabbit
特异性	ab109453 only detects p95 NBS1 phosphorylated on Serine 343.
经测试应用	**适用于:** WB, IP, ICC **不适用于:** Flow Cyt or IHC-P
种属反应性	**与反应:** Human
免疫原	Synthetic peptide. within Human p95 NBS1 (phospho S343). The exact sequence is proprietary. Database link: O60934
阳性对照	WB: Jurkat, HeLa cell lysates (treated and untreated with Etopside).
常规说明	Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents This product is a recombinant rabbit monoclonal antibody.

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
存储溶液	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol, 0.05% BSA, 50% Tissue culture supernatant
纯度	Tissue culture supernatant
克隆	单克隆
克隆编号	EP178
同种型	IgG

应用

Our Abpromise guarantee covers the use of **ab109453** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	Ab评论	说明
WB		1/500 - 1/1000. Detects a band of approximately 95 kDa (predicted molecular weight: 84 kDa).
IP		1/50.
ICC		1/50 - 1/100.

应用说明 Is unsuitable for Flow Cyt or IHC-P.

靶标

功能 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.

组织特异性 Ubiquitous. Expressed at high levels in testis.

疾病相关 Nijmegen breakage syndrome
Breast cancer
Aplastic anemia
Defects in NBN might play a role in the pathogenesis of childhood acute lymphoblastic leukemia (ALL).

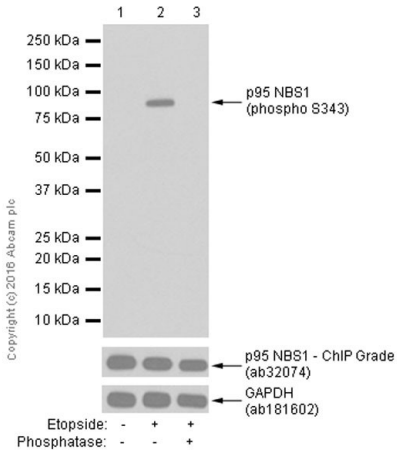
序列相似性 Contains 1 BRCT domain.
Contains 1 FHA domain.

结构域 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.

翻译后修饰 Phosphorylated by ATM in response of ionizing radiation, and such phosphorylation is responsible intra-S phase checkpoint control and telomere maintenance.

细胞定位	Nucleus. Nucleus, PML body. Chromosome, telomere. Localizes to discrete nuclear foci after treatment with genotoxic agents.

图片



Western blot - Anti-p95 NBS1 (phospho S343) antibody [EP178] (ab109453)

All lanes : Anti-p95 NBS1 (phospho S343) antibody [EP178] (ab109453) at 1/5000 dilution

Lane 1 : Untreated HeLa (human cervix adenocarcinoma) cells whole cell lysates
Lane 2 : HeLa (human cervix adenocarcinoma) cells were treated with Etopside whole cell lysates
Lane 3 : HeLa (human cervix adenocarcinoma) cells were treated with Etopside whole cell lysates. Then the membrane was incubated with Alkaline phosphatase.

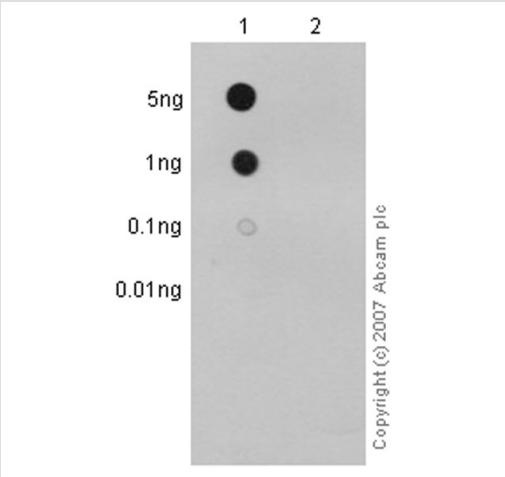
Lysates/proteins at 15 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 84 kDa
Observed band size: 95 kDa

Exposure time: 1 minute

Blocking and diluting buffer: 5% NFDM/TBST



Dot Blot - Anti-p95 NBS1 (phospho S343) antibody [EP178] (ab109453)

Dot blot analysis of p95 NBS1 (pS343) peptide (Lane 1) and p95 NBS1 non-phospho peptide (Lane 2) labelling p95 NBS1 (phospho S343) with ab109453 at a dilution of 1/1000. A Peroxidase-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody at a dilution of 1/2500.

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure time: 3 minutes.

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