

Anti-p95/NBS1 (phospho S432) antibody [EPR2470Y] - BSA and Azide free ab247400

Recombinant RabMAb

4 Images

Overview

Product name	Anti-p95/NBS1 (phospho S432) antibody [EPR2470Y] - BSA and Azide free
Description	Rabbit monoclonal [EPR2470Y] to p95/NBS1 (phospho S432) - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: Dot blot, IHC-P Unsuitable for: Flow Cyt, ICC/IF, IP or WB
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	<p>ab247400 is the carrier-free version of ab75778.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with</p>

these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR2470Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab247400 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Dot blot		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See <u>IHC antigen retrieval protocols</u> .

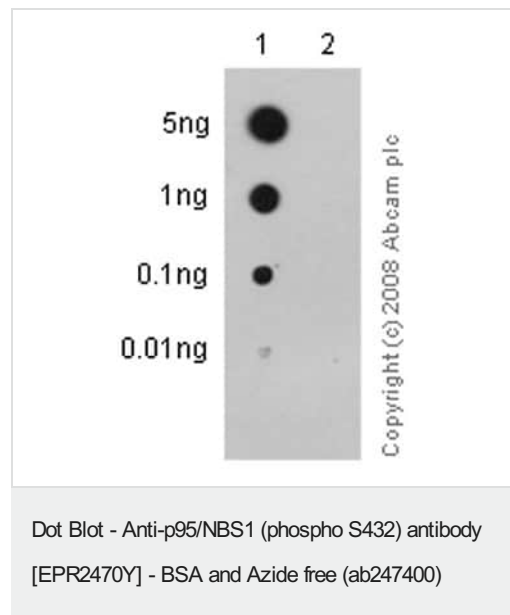
Application notes Is unsuitable for Flow Cyt, ICC/IF, IP or WB.

Target

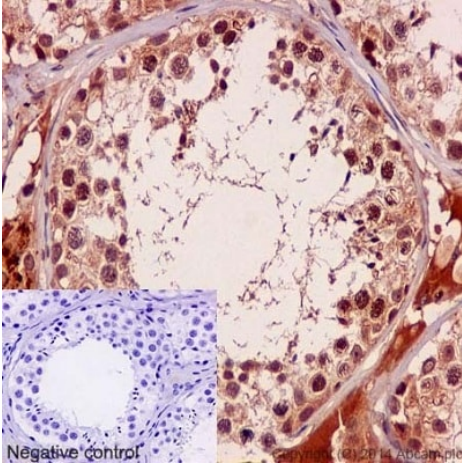
Function Component of the MRE11-RAD50-NBN (MRN complex) which plays a critical role in the cellular response to DNA damage and the maintenance of chromosome integrity. The complex is involved in double-strand break (DSB) repair, DNA recombination, maintenance of telomere integrity, cell cycle checkpoint control and meiosis. The complex possesses single-strand endonuclease activity and double-strand-specific 3'-5' exonuclease activity, which are provided by 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/P14-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.
Tissue specificity	Ubiquitous. Expressed at high levels in testis.
Involvement in disease	Nijmegen breakage syndrome Breast cancer Aplastic anemia Defects in NBN might play a role in the pathogenesis of childhood acute lymphoblastic leukemia (ALL).
Sequence similarities	Contains 1 BRCT domain. Contains 1 FHA domain.
Domain	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.
Post-translational modifications	Phosphorylated by ATM in response of ionizing radiation, and such phosphorylation is responsible intra-S phase checkpoint control and telomere maintenance.
Cellular localization	Nucleus. Nucleus, PML body. Chromosome, telomere. Localizes to discrete nuclear foci after treatment with genotoxic agents.

Images

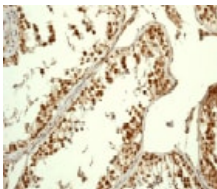


This data was developed using [ab75778](#), the same antibody clone in a different buffer formulation. Primary antibody dilution: 1/1000
Secondary antibody: goat anti-rabbit IgG, (H+L), peroxidase conjugated Secondary antibody dilution: 1/2500 Blocking & dilution buffer: 5% NFDm/TBST Lane 1 sample: p95/NBS1 (pS432) phospho peptide Lane 2 sample: p95/NBS1 non-phospho peptide
Exposure time: 3 minutes



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p95/NBS1 (phospho S432) antibody [EPR2470Y] - BSA and Azide free (ab247400)

This data was developed using [**ab75778**](#), the same antibody clone in a different buffer formulation. [**ab75778**](#) staining p95/NBS1 (phospho S432) in Human testis tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed and paraffin-embedded, antigen retrieval was by heat mediation in Tris/EDTA buffer pH9. Samples were incubated with primary antibody (1/300). An undiluted HRP-conjugated mouse anti-rabbit IgG was used as the secondary antibody. Tissue counterstained with Hematoxylin. PBS was used in the negative control rather than the Primary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p95/NBS1 (phospho S432) antibody [EPR2470Y] - BSA and Azide free (ab247400)

This data was developed using [**ab75778**](#), the same antibody clone in a different buffer formulation. [**ab75778**](#) at 1/100-1/250 dilution staining p95/NBS1 in human testis by Immunohistochemistry, Paraffin-embedded tissue. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-p95/NBS1 (phospho S432) antibody
[EPR2470Y] - BSA and Azide free (ab247400)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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