细胞周期调节蛋白 P95 抗体

产品货号： mlR6124

英文名称： p95 NBS1

中文名称： 细胞周期调节蛋白 P95 抗体

别　　名： p95/NBS1; p95; Nijmegen breakage syndrome 1; Nijmegen breakage syndrome 1 (nibrin); AT V1; AT V2; ATV; Cell cycle regulatory protein p95; FLJ10155; MGC87362; MGC93174; NBN; NBS 1; NBS; NBS1; Nibrin; Nijmegen breakage syndrome; Nijmegen breakage syndrome protein 1; NBN_HUMAN; Nibrin; Nijmegen breakage syndrome protein 1; Cell cycle regulatory protein p95.

研究领域： 肿瘤　细胞生物　细胞周期蛋白

抗体来源： Rabbit

克隆类型： Polyclonal

交叉反应： Human, Mouse, Rat, Chicken, Dog, Cow, Horse, Rabbit,

产品应用： ELISA=1:500-1000 IHC-P=1:400-800 IHC-F=1:400-800 IF=1:100-500 （石蜡切片需做抗原修复）

not yet tested in other applications.

optimal dilutions/concentrations should be determined by the end user.

分 子 量： 85kDa

细胞定位： 细胞核

性　　状： Lyophilized or Liquid

浓　　度： 1mg/ml

免 疫 原： KLH conjugated synthetic peptide derived from human NBS1:641-754/754

亚　　型： IgG

纯化方法： affinity purified by Protein A

储 存 液： 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

保存条件： Store at -20 ° C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20° C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ° C.

PubMed： PubMed

产品介绍 background:

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.

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/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.

Subunit:

Component of the MRN complex composed of two heterodimers RAD50/MRE11A associated with a single NBN. Component of the BASC complex, at least composed of BRCA1, MSH2, MSH6, MLH1, ATM, BLM, RAD50 and

MRE11A (By similarity). Interacts with histone H2AFX this requires phosphorylation of H2AFX on 'Ser-139'. Interacts with HJURP, INTS3, KPNA2 and TERF2. Interacts with RBBP8; the interaction links the role of the MRN complex in DNA double-strand break sensing to resection. Interacts with SP100; recruits NBN to PML bodies.

Subcellular Location:

Nucleus. Nucleus, PML body. Chromosome, telomere. Note=Localizes to discrete nuclear foci after treatment with genotoxic agents.

Tissue Specificity:

Ubiquitous. Expressed at high levels in testis.

Post-translational modifications:

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

DISEASE:

Nijmegen breakage syndrome (NBS) [MIM:251260]: A disorder characterized by chromosomal instability, radiation sensitivity, microcephaly, growth retardation, immunodeficiency and predisposition to cancer, particularly to lymphoid malignancies. Note=The disease is caused by mutations affecting the gene represented in this entry.

Breast cancer (BC) [MIM:114480]: A common malignancy originating from breast epithelial tissue. Breast neoplasms can be distinguished by their histologic pattern. Invasive ductal carcinoma is by far the most common type. Breast cancer is etiologically and genetically heterogeneous. Important genetic factors have been indicated by familial occurrence and bilateral involvement. Mutations at more than one locus can be involved in different families or even in the same case. Note=Disease susceptibility is associated with variations affecting the gene represented in this entry.

Aplastic anemia (AA) [MIM:609135]: A form of anemia in which the bone marrow fails to produce adequate numbers of peripheral blood elements. It is characterized by peripheral pancytopenia and marrow hypoplasia. Note=Disease susceptibility may be associated with variations affecting the gene represented in this entry.

Note=Defects in NBN might play a role in the pathogenesis of childhood acute lymphoblastic leukemia (ALL).

Similarity:

Contains 1 BRCT domain.

Contains 1 FHA domain.

SWISS:

O60934

Gene ID:

4683

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

产品图片 ：