

Anti-Nucleophosmin antibody ab114853

2 图像

概述

产品名称	Anti-Nucleophosmin抗体
描述	兔多克隆抗体to Nucleophosmin
宿主	Rabbit
经测试应用	适用于: IHC-P, IP 不适用于: WB
种属反应性	与反应: Mouse, Human 预测可用于: Rat, Rabbit, Horse, Cow, Dog, Pig, Chimpanzee, Rhesus monkey, Gorilla, Chinese hamster, Orangutan, Elephant 
免疫原	Synthetic peptide, corresponding to a region within amino acids 250-294 of Human Nucleophosmin (NP_002511.1).
阳性对照	HeLa whole cell lysate

性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
存储溶液	Preservative: 0.09% Sodium azide Constituent: 99% Tris citrate/phosphate
纯度	pH 7 to 8 Immunogen affinity purified
纯化说明	ab114853 was affinity purified using an epitope specific to Nucleophosmin immobilized on a solid support.
克隆	多克隆
同种型	IgG

应用

The Abpromise guarantee **Abpromise™** 承诺保证使用ab114853于以下的经测试应用

“应用说明”部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IHC-P		1/1000 - 1/5000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
IP		Use at 5-10 µg/mg of lysate.

应用说明

Is unsuitable for WB.

靶标

功能

Involved in diverse cellular processes such as ribosome biogenesis, centrosome duplication, protein chaperoning, histone assembly, cell proliferation, and regulation of tumor suppressors p53/TP53 and ARF. Binds ribosome presumably to drive ribosome nuclear export. Associated with nucleolar ribonucleoprotein structures and bind single-stranded nucleic acids. Acts as a chaperonin for the core histones H3, H2B and H4. Stimulates APEX1 endonuclease activity on apurinic/aprimidinic (AP) double-stranded DNA but inhibits APEX1 endonuclease activity on AP single-stranded RNA. May exert a control of APEX1 endonuclease activity within nucleoli devoted to repair AP on rDNA and the removal of oxidized rRNA molecules. In concert with BRCA2, regulates centrosome duplication. Regulates centriole duplication: phosphorylation by PLK2 is able to trigger centriole replication. Negatively regulates the activation of EIF2AK2/PKR and suppresses apoptosis through inhibition of EIF2AK2/PKR autophosphorylation. Antagonizes the inhibitory effect of ATF5 on cell proliferation and relieves ATF5-induced G2/M blockade (PubMed:22528486).

疾病相关

A chromosomal aberration involving NPM1 is found in a form of non-Hodgkin lymphoma. Translocation t(2;5)(p23;q35) with ALK. The resulting chimeric NPM1-ALK protein homodimerize and the kinase becomes constitutively activated.

A chromosomal aberration involving NPM1 is found in a form of acute promyelocytic leukemia. Translocation t(5;17)(q32;q11) with RARA.

A chromosomal aberration involving NPM1 is a cause of myelodysplastic syndrome (MDS). Translocation t(3;5)(q25.1;q34) with MLL1.

Defects in NPM1 are associated with acute myelogenous leukemia (AML). Mutations in exon 12 affecting the C-terminus of the protein are associated with an aberrant cytoplasmic location.

序列相似性

Belongs to the nucleoplasmin family.

翻译后修饰

Acetylated at C-terminal lysine residues, thereby increasing affinity to histones.

ADP-ribosylated.

Phosphorylated at Ser-4 by PLK1 and PLK2. Phosphorylation at Ser-4 by PLK2 in S phase is required for centriole duplication and is sufficient to trigger centriole replication. Phosphorylation at Ser-4 by PLK1 takes place during mitosis. Phosphorylated by CDK2 at Ser-125 and Thr-199. Phosphorylation at Thr-199 may trigger initiation of centrosome duplication. Phosphorylated by CDK1 at Thr-199, Thr-219, Thr-234 and Thr-237 during cell mitosis. When these four sites are phosphorylated, RNA-binding activity seem to be abolished. May be phosphorylated at Ser-70 by NEK2. The Thr-199 phosphorylated form has higher affinity for ROCK2. CDK6 triggers Thr-199 phosphorylation when complexed to Kaposi's sarcoma herpesvirus (KSHV) V-cyclin, leading to viral reactivation by reducing viral LANA levels.

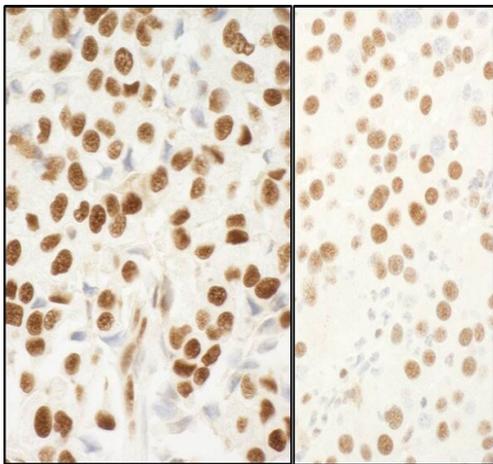
Sumoylated by ARF.

细胞定位

Nucleus, nucleolus. Nucleus, nucleoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Generally nucleolar, but is translocated to the nucleoplasm in case of serum starvation or treatment with anticancer drugs. Has been found in the cytoplasm in patients with

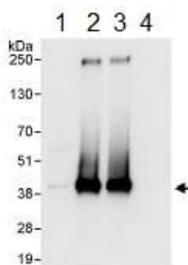
primary acute myelogenous leukemia (AML), but not with secondary AML. Can shuttle between cytoplasm and nucleus. Co-localizes with the methylated form of RPS10 in the granular component (GC) region of the nucleolus. Colocalized with nucleolin and APEX1 in nucleoli. Isoform 1 of NEK2 is required for its localization to the centrosome during mitosis.

图片



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nucleophosmin antibody (ab114853)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma (left) and mouse renal cell carcinoma (right) tissues labelling Nucleophosmin with ab114853 at 1/1000 (1 µg/ml). Detection: DAB.



Immunoprecipitation - Anti-Nucleophosmin antibody (ab114853)

ab114853, precipitating Nucleophosmin at 10 µg/mg lysate; detection by WB utilised an alternative anti-Nucleophosmin antibody, raised against an upstream epitope (at 0.1 µg/ml). Lane 1; IP using an antibody to an upstream epitope. This antibody was also used for WB detection. Lane 2; IP using another antibody to an upstream epitope. Lane 3; IP using ab114853 at 10 µg/mg HeLa whole cell lysate. Lane 4; IP using control IgG. 1 mg of lysate was used for IP, and 20% of IP was loaded. Detection utilised ECL with a 3 second exposure.

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