

# Anti-Nucleophosmin antibody [FC82291] ab10530

★★★★★ [27 Abreviews](#) [101 References](#) [5 图像](#)

### 概述

产品名称	Anti-Nucleophosmin抗体[FC82291]
描述	小鼠单克隆抗体[FC82291] to Nucleophosmin
宿主	Mouse
经测试应用	适用于: ICC/IF, WB
种属反应性	与反应: Mouse, Rat, Cow, Dog, Human, African green monkey, Chinese hamster
免疫原	Full length native protein (purified) (Rat).
表位	The epitope recognized by the antibody lies within the 68 amino acids at the C terminus of B23.
阳性对照	NIH3T3 whole cell lysate.
常规说明	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### 性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	pH: 7.40 Preservative: 0.097% Sodium azide Constituents: 0.0268% PBS, 1% BSA
纯度	Protein G purified
克隆	单克隆
克隆编号	FC82291
同种型	IgG1

**The Abpromise guarantee**      **Abpromise™**承诺保证使用ab10530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
ICC/IF	★★★★★ (5)	Use at an assay dependent concentration.
WB	★★★★★ (14)	Use a concentration of 2 - 4 µg/ml. Detects a band of approximately 37 kDa (predicted molecular weight: 33 kDa).

**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 nucleoplasm 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.

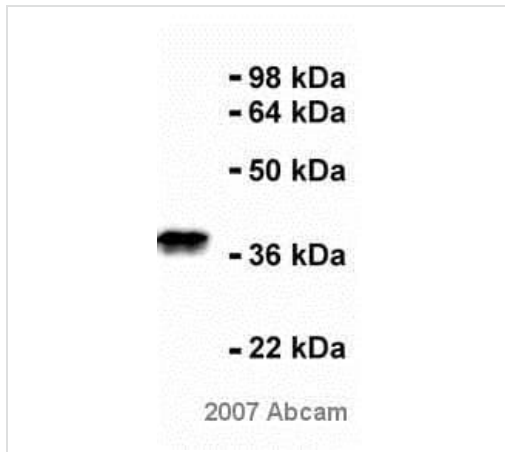
Sumoylated by ARF.

**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

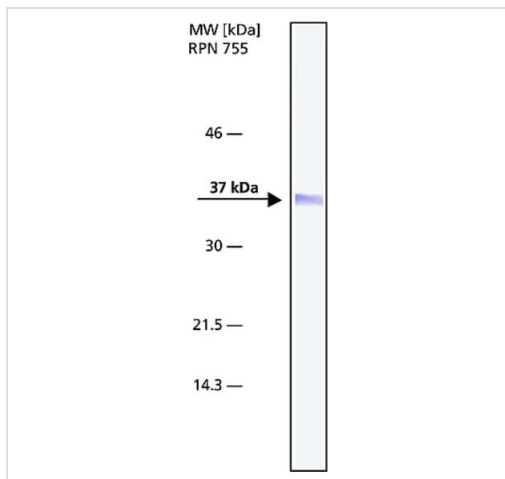


Western blot image of ab10530 staining whole cell lysate of U2OS cells. The gel was blocked with 5% milk for 1 hour at 21°C. The primary antibody was diluted to 2 µg/ml and incubated for 12 hours at 4°C. A HRP conjugated goat anti-mouse antibody was used as the secondary.

Western blot - Anti-Nucleophosmin antibody

[FC82291] (ab10530)

This image is courtesy of an anonymous Abreview



Anti-Nucleophosmin antibody [FC82291] (ab10530) at 0.2 µg/ml + 3T3 cell lysate

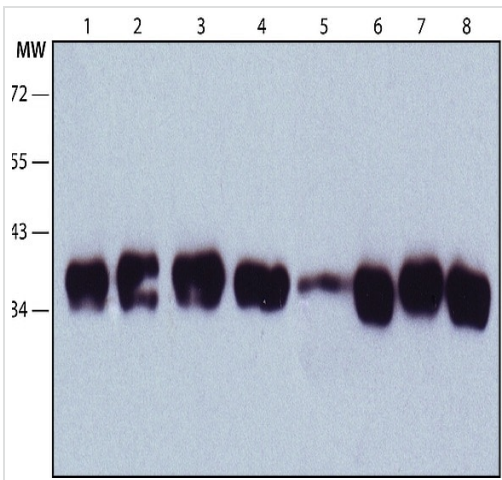
### Secondary

Anti-Mouse IgG (Fab)

**Predicted band size: 33 kDa**

Western blot - Anti-Nucleophosmin antibody

[FC82291] (ab10530)



Western blot - Anti-Nucleophosmin antibody  
[FC82291] (ab10530)

**All lanes :** Anti-Nucleophosmin antibody [FC82291] (ab10530) at 0.5 µg/ml

**Lane 1 :** HeLa cell lysate

**Lane 2 :** JURKAT cell lysate

**Lane 3 :** COS7 cell lysate

**Lane 4 :** NIH-3T3 cell lysate

**Lane 5 :** RAT2 cell lysate

**Lane 6 :** CHO cell lysate

**Lane 7 :** MDBK cell lysate

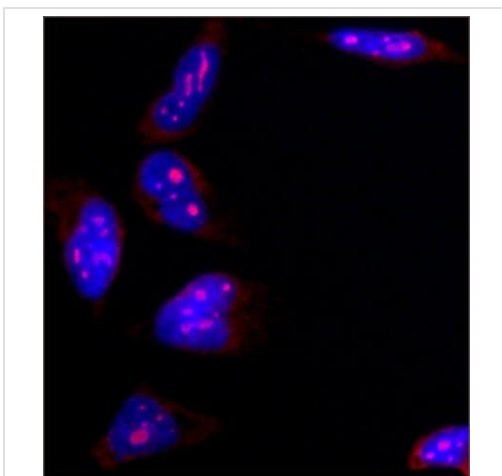
**Lane 8 :** MDCK cell lysate

**Secondary**

**All lanes :** Goat Anti-Mouse IgG-Peroxidase

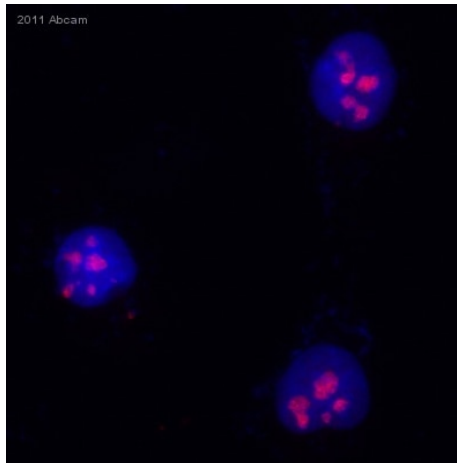
**Predicted band size:** 33 kDa

Cell line lysate separated on SDS-PAGE, probed with ab10530 (0.5 µg/mL)



Immunocytochemistry/ Immunofluorescence - Anti-Nucleophosmin antibody [FC82291] (ab10530)

Immunocytochemistry/ Immunofluorescence analysis of HeLa cells staining Nucleophosmin using ab10530 (dilution 1/500). Cells were fixed and permeabilized with methanol followed by methanol:acetone. Developed using Goat Anti-Mouse IgG, Cy3™ conjugate and counterstained with DAPI (blue) to stain nuclei.



Immunocytochemistry/ Immunofluorescence - Anti-Nucleophosmin antibody [FC82291] (ab10530)

This image is courtesy of an Anonymous Abreview.

ab10530 staining Nucleophosmin in immortalized Human trabecular meshwork cells by Immunocytochemistry/ Immunofluorescence. Cells were PFA-fixed and permeabilized in 0.5% Triton X-100 prior to blocking in 3% BSA for 45 minutes at room temperature. The primary antibody was diluted 1/1000 in PBS/0.3% BSA and incubated with the sample for 2 hours. The secondary antibody was Cy3<sup>®</sup>-conjugated Donkey anti-Mouse polyclonal, diluted 1/1000.

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