abcam

Product datasheet

Anti-Nucleophosmin antibody ab31319

画像数 3

製品の概要

製品名	Anti-Nucleophosmin antibody
製品の詳細	Goat polyclonal to Nucleophosmin
由来種	Goat
アプリケーション	**適用あり:** WB, ICC/IF
種交差性	**交差種:** Mouse, Human **交差が予測される動物種:** Rat, Dog, Chimpanzee
免疫原	Synthetic peptide: C-QEAIQDLWQWRKSL , corresponding to C terminal amino acids 281-294 of Human Nucleophosmin Run BLAST with Run BLAST with
特記事項	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. 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&As

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
バッファー	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: Tris buffered saline, 0.5% BSA
精製度	Immunogen affinity purified
特記事項(精製)	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab31319の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		Use a concentration of 0.1 - 0.3 µg/ml. Detects a band of approximately 37 kDa. 1 hour primary incubation is recommended for this product.
ICC/IF		Use a concentration of 10 µg/ml.

ターゲット情報

機能

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/apyrimidinic (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).

関連疾患

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 MLF1.
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.

配列類似性

Belongs to the nucleoplasmin family.

翻訳後修飾

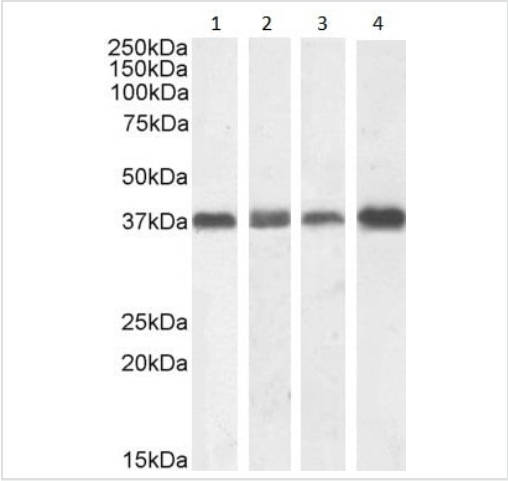
Acetylated at C-terminal lysine residues, thereby increasing affinity to histones.
ADP-ribosylated.
Phosphorylated at Ser-4 by PLK1 and PLK2. Phosphorylation at Ser-4 by PLK2 in S phase is required for centriole duplication and is sufficient to trigger centriole replication. Phosphorylation at Ser-4 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 phosphorated, 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.

細胞内局在

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.

画像



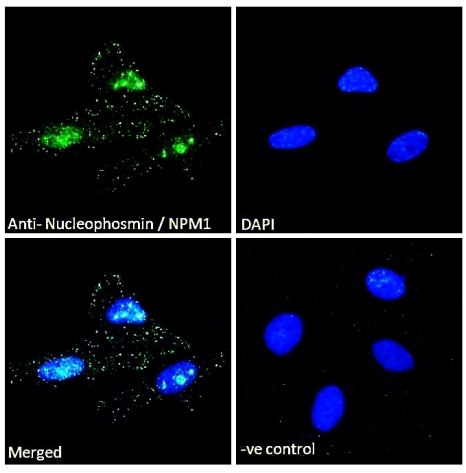
Western blot - Anti-Nucleophosmin antibody (ab31319)

Lane 1 : Anti-Nucleophosmin antibody (ab31319) at 1 µg/ml
Lane 2 : Anti-Nucleophosmin antibody (ab31319) at 0.1 µg/ml
Lanes 3-4 : Anti-Nucleophosmin antibody (ab31319) at 0.01 µg/ml

Lane 1 : NIH3T3
Lane 2 : Daudi
Lane 3 : Jurkat
Lane 4 : K562

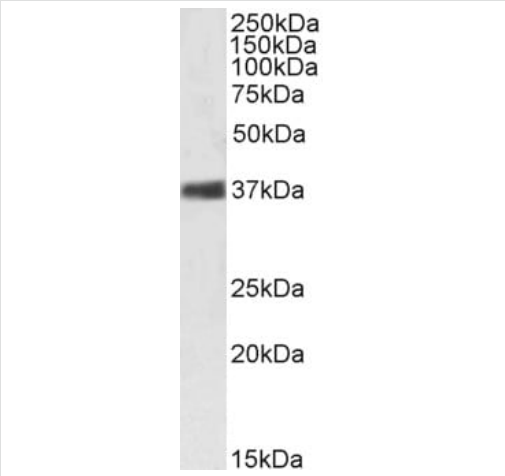
Lysates/proteins at 35 µg per lane.

Detected by chemiluminescence.



Immunocytochemistry/ Immunofluorescence - Anti-Nucleophosmin antibody (ab31319)

Immunocytochemistry/ Immunofluorescence of HeLa cell labeling nucleophosmin with ab31319 at 10 µg/mL.
Cells were fixed with paraformaldehyde and permeabilized with 0.15% Triton. Alexa Fluor488 at 2 µg/mL was used as the secondary antibody. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10 µg/mL) followed by Alexa Fluor488 secondary antibody (2 µg/mL).



Western blot - Anti-Nucleophosmin antibody (ab31319)

Anti-Nucleophosmin antibody (ab31319) at 1 µg/ml + Mouse spleen tissue lysate at 35 µg

Detected by chemiluminescence.

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