abcam

Product datasheet

# Anti-Nucleophosmin (phospho T199) antibody [EP1857Y] ab81551

リコンビナント RabMAb

1 Abreviews 4 References 画像数 6

## 製品の概要

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|---|---|
| **製品名** | Anti-Nucleophosmin (phospho T199) antibody [EP1857Y] |
| **製品の詳細** | Rabbit monoclonal [EP1857Y] to Nucleophosmin (phospho T199) |
| **由来種** | Rabbit |
| **アプリケーション** | **適用あり:** WB, IHC-P, ICC/IF, Flow Cyt (Intra) |
| **種交差性** | **交差種:** Human |
| **免疫原** | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| **ポジティブ・コントロール** | WB: lysate from HeLa cell treated with CA; IHC-P: Human lymphoma; ICC/IF: HeLa cells. |
| **特記事項** | This product is a recombinant monoclonal antibody, which offers several advantages including:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production<br>For more information **see here**.<br>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.<br><br>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information. |

## 製品の特性

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|---|---|
| **製品の状態** | Liquid |
| **保存方法** | Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C. |
| **バッファー** | pH: 7.20<br>Preservative: 0.05% Sodium azide<br>Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant |
| **精製度** | Protein A purified |
| **ポリ/モノ** | モノクローナル |

| | |
|---|---|
| **クローン名** | EP1857Y |
| **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ab81551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** | | 1/2500 - 1/10000. Detects a band of approximately 33 kDa (predicted molecular weight: 33 kDa). |
| **IHC-P** | | 1/100 - 1/250. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. |
| **ICC/IF** | ★★★★☆ (1) | 1/100 - 1/250. |
| **Flow Cyt (Intra)** | | 1/100.<br>**ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |

## 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.

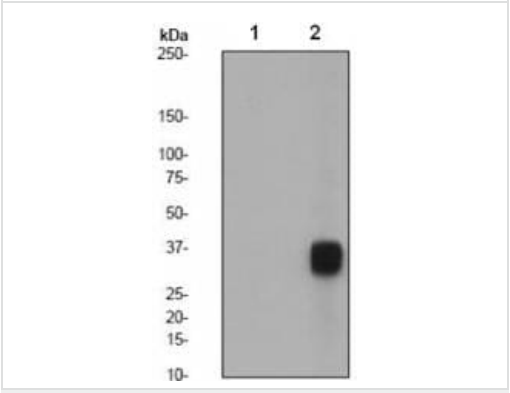
**翻訳後修飾**

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 (phospho T199) antibody [EP1857Y] (ab81551)

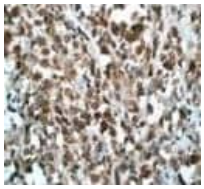
**All lanes :** Anti-Nucleophosmin (phospho T199) antibody [EP1857Y] (ab81551) at 1/2500 dilution

**Lane 1 :** lysate from untreated HeLa cells
**Lane 2 :** lysate from HeLa cells treated with CA

Lysates/proteins at 10 µg per lane.

**Secondary**
**All lanes :** HRP labelled Goat anti-Rabbit at 1/2000 dilution

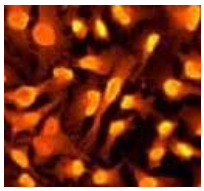
**Predicted band size:** 33 kDa
**Observed band size:** 33 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nucleophosmin (phospho T199) antibody [EP1857Y] (ab81551)

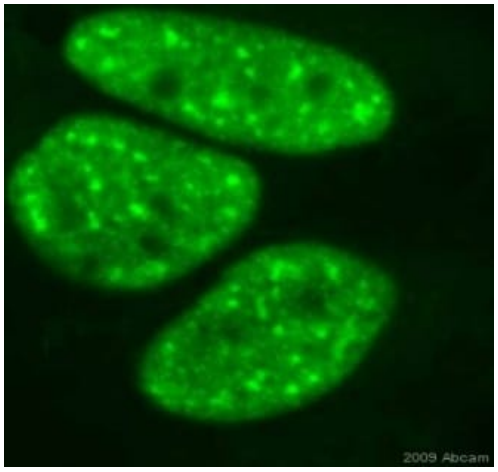
Immunohistochemistry analysis of paraffin-embedded Human lymphoma tissue, using 1/100 ab81551.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Nucleophosmin (phospho T199) antibody [EP1857Y] (ab81551)

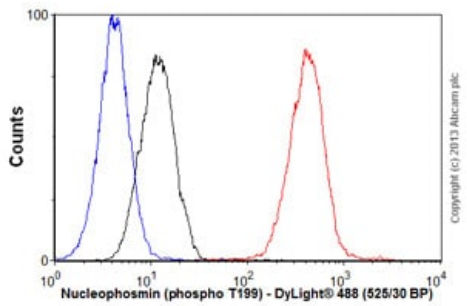
Immunofluorescent staing of HeLa cells using 1/100 ab81551.




Immunocytochemistry/ Immunofluorescence - Anti-Nucleophosmin (phospho T199) antibody [EP1857Y] (ab81551)

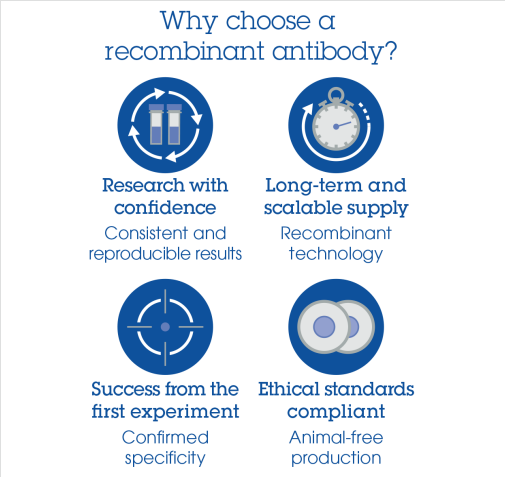
This image is a courtesy of Anonymous Abreview

ab81551 staining Nucleophosmin (phospho T199) in human HeLa cells by Immunocytochemistry/ Immunofluorescence. Cells were fixed with formaldehyde, permeabilized with 0.1% Triton x100 in PBS and blocking with 5% serum was performed for 30 minutes at $23^0$C. Samples were incubated with primary antibody (1/150 in PBS) for 1 hour at 23°C. An Alexa Fluor®488-conjugated goat polyclonal to rabbit IgG was used at dilution at 1/100 as secondary antibody.




Flow Cytometry (Intracellular) - Anti-Nucleophosmin (phospho T199) antibody [EP1857Y] (ab81551)

Overlay histogram showing HeLa cells stained with **ab76539** (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (**ab76539**, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (**ab96899**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x$10^6$ cells) used under the same conditions. Unlabelled sample (blue line). Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.




Anti-Nucleophosmin (phospho T199) antibody [EP1857Y] (ab81551)

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

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