abcam

Product datasheet

# Anti-Ki67 antibody [SP6], prediluted ab21700

KO 評価済 リコンビナント RabMAb

3 Abreviews 27 References 画像数 9

## 製品の概要

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|---|---|
| **製品名** | Anti-Ki67 antibody [SP6], prediluted |
| **製品の詳細** | Rabbit monoclonal [SP6] to Ki67, prediluted |
| **由来種** | Rabbit |
| **特異性** | ab21700 recognises Ki67. |
| **アプリケーション** | **適用あり:** WB, IHC-P, Flow Cyt (Intra), ICC/IF |
| **種交差性** | **交差種:** Mouse, Human<br>**交差が予測される動物種:** Rat |
| **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: Ramos and HeLa cell lysates. IHC-P: Human tonsil and thymus tissue; Human endometrial and breast adenocarcinoma tissue. ICC/IF: HeLa and HAP1 cells. Flow Cyt (intra): HAP1 cells. |
| **特記事項** | This product was switched from hybridoma to recombinant format on 25th October 2019.<br>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>**This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.** |

## 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 +4°C. |
| **バッファー** | pH: 7.60<br>Preservative: 0.1% Sodium azide<br>Constituents: Tris buffered saline, 1% BSA |

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| | Inert stabilizer |
| **精製度** | Protein A purified |
| **ポリ/モノ** | モノクローナル |
| **クローン名** | SP6 |
| **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ab21700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 at an assay dependent concentration. Predicted molecular weight: 358 kDa. |
| **IHC-P** | ★★★★★ (2) | 1/1.<br>Antigen retrieval: heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) |
| **Flow Cyt (Intra)** | | Use at an assay dependent concentration. |
| **ICC/IF** | ★★★★★ (1) | Use at an assay dependent concentration.<br>Use at an assay dependent concentration.<br>If fixing cells in 4% PFA (20 min, room temp), it is recommended to permeabilized cells with 0.1% Triton-X for 5 min |

## ターゲット情報

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|---|---|
| **機能** | Required to maintain individual mitotic chromosomes dispersed in the cytoplasm following nuclear envelope disassembly (PubMed:27362226). Associates with the surface of the mitotic chromosome, the perichromosomal layer, and covers a substantial fraction of the chromosome surface (PubMed:27362226). Prevents chromosomes from collapsing into a single chromatin mass by forming a steric and electrostatic charge barrier: the protein has a high net electrical charge and acts as a surfactant, dispersing chromosomes and enabling independent chromosome motility (PubMed:27362226). Binds DNA, with a preference for supercoiled DNA and AT-rich DNA (PubMed:10878551). Does not contribute to the internal structure of mitotic chromosomes (By similarity). May play a role in chromatin organization (PubMed:24867636). It is however unclear whether it plays a direct role in chromatin organization or whether it is an indirect consequence of its function in maintaining mitotic chromosomes dispersed. |
| **配列類似性** | Contains 1 FHA domain.<br>Contains 16 K167R repeats.<br>Contains 1 PP1-binding domain. |
| **発生段階** | Expression occurs preferentially during late G1, S, G2 and M phases of the cell cycle, while in cells in G0 phase the antigen cannot be detected (at protein level) (PubMed:6206131). Present at highest level in G2 phase and during mitosis (at protein level). In interphase, forms fiber-like structures in fibrillarin-deficient regions surrounding nucleoli (PubMed:2674163, |

| | |
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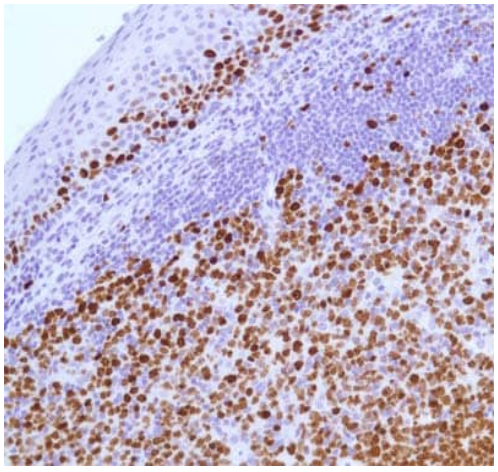
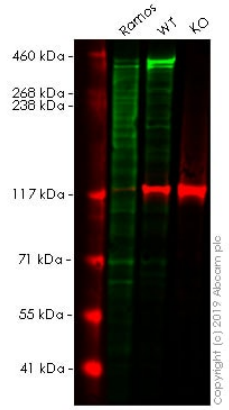
| | PubMed:8799815). |
| **翻訳後修飾** | Phosphorylated. Hyperphosphorylated in mitosis (PubMed:10502411, PubMed:10653604). Hyperphosphorylated form does not bind DNA. |
| **細胞内局在** | Chromosome. Nucleus. Nucleus, nucleolus. Associates with the surface of the mitotic chromosome, the perichromosomal layer, and covers a substantial fraction of the mitotic chromosome surface (PubMed:27362226). Associates with satellite DNA in G1 phase (PubMed:9510506). Binds tightly to chromatin in interphase, chromatin-binding decreases in mitosis when it associates with the surface of the condensed chromosomes (PubMed:15896774, PubMed:22002106). Predominantly localized in the G1 phase in the perinucleolar region, in the later phases it is also detected throughout the nuclear interior, being predominantly localized in the nuclear matrix (PubMed:22002106). |

## 画像



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 antibody [SP6], prediluted (ab21700)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human tonsil tissue, staining Ki67 with ab21700.




Western blot - Anti-Ki67 antibody [SP6], prediluted (ab21700)

**All lanes :** Anti-Ki67 antibody [SP6] (**ab16667**) at 1/100 dilution

**Lane 1 :** Ramos cell lysate
**Lane 2 :** Wild-type HeLa cell lysate
**Lane 3 :** MKI67 knockout HeLa cell lysate

Lysates/proteins at 20 µg per lane.

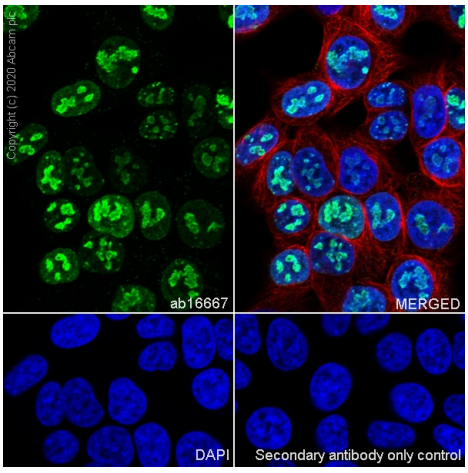
Performed under reducing conditions.

**Predicted band size:** 358 kDa
**Observed band size:** 359 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab16667**).

**Lanes 1 - 3:** Merged signal (red and green). Green - **ab16667** observed at 359 kDa. Red - loading control, **ab130007** observed at 125 kDa.

**ab16667** was shown to react with Ki67 in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab255407** (knockout cell lysate **ab263762**) was used. Wild-type and Ki67 knockout samples were subjected to SDS-PAGE. **ab16667** and Anti-Vinculin antibody [VIN-54] (**ab130007**) were incubated overnight at 4°C at 1 in 100 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

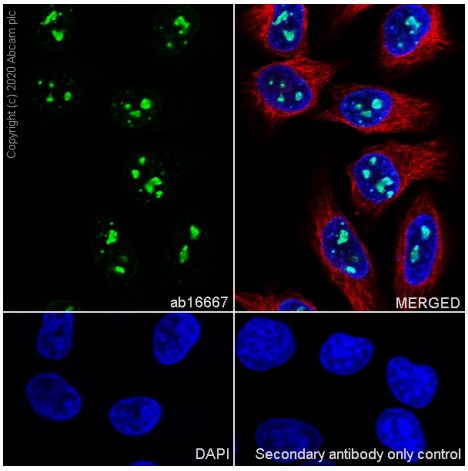



Immunocytochemistry/ Immunofluorescence - Anti-Ki67 antibody [SP6], prediluted (ab21700)

This data was developed using **ab16667**, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 100% methanol-fixed, None permeabilized parental HAP1 cells labelling Ki67 with **ab16667** at 1/1000 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (2 µg/mL) (Green). Confocal image showing nucleolar staining in parental HAP1cell line **ab195889** Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (2.5 µg/mL) (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1000 dilution (2 µg/mL).

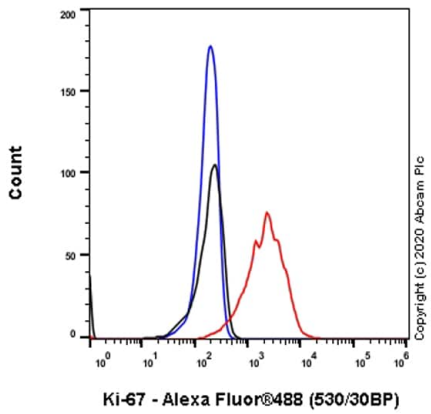



Immunocytochemistry/ Immunofluorescence - Anti-Ki67 antibody [SP6], prediluted (ab21700)

This data was developed using **ab16667**, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 100% methanol-fixed, None permeabilized HeLa cells labelling Ki67 with **ab16667** at 1/1000 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (2 µg/mL) (Green). Confocal image showing nucleolar staining in HeLa cell line **ab195889** Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (2.5 µg/mL) (Red). The Nuclear counterstain was DAPI (Blue).

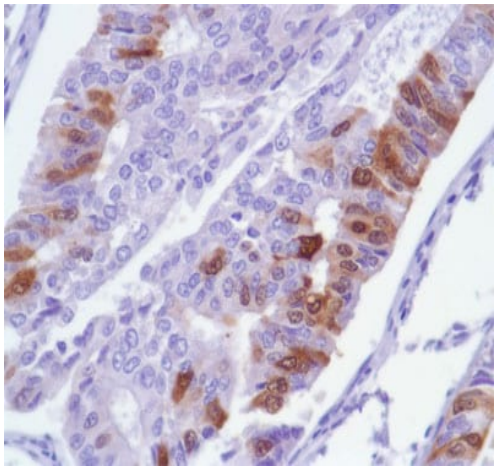
Secondary antibody only control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1000 dilution (2 µg/mL).




Flow Cytometry (Intracellular) - Anti-Ki67 antibody [SP6], prediluted (ab21700)

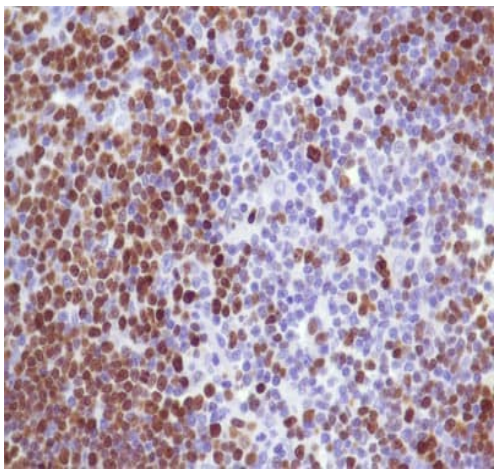
This data was developed using **ab16667**, the same antibody clone in a different buffer formulation.

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized parental HAP1 (Wildtype control Human chronic myelogenous leukemia near-haploid cell line) cells labelling Ki67 with **ab16667** at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.



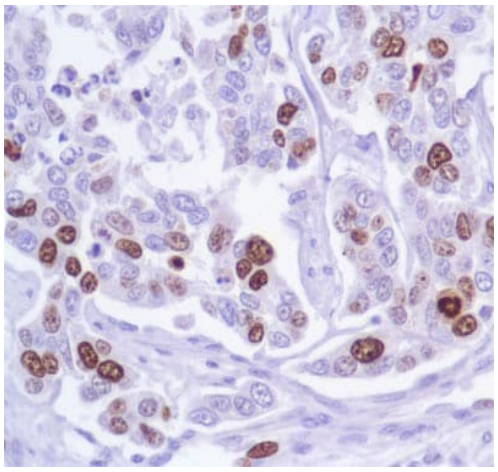
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 antibody [SP6], prediluted (ab21700)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human endometrial adenocarcinoma tissue, staining Ki67 with ab21700.



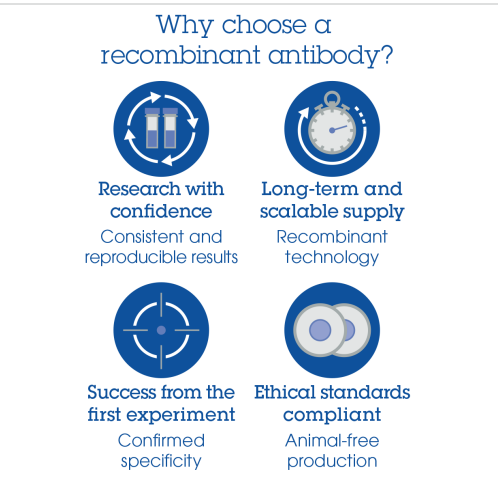
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 antibody [SP6], prediluted (ab21700)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human thymus tissue, staining Ki67 with ab21700.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 antibody [SP6], prediluted (ab21700)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human breast adenocarcinoma tissue, staining Ki67 with ab21700.




Anti-Ki67 antibody [SP6], prediluted (ab21700)

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