# abcam

## Product datasheet

## Alexa Fluor® 488 Anti-Ki67 antibody [EPR3610] ab197234



ייבע RabMAb

★★★★★ 2 Abreviews 30 References 画像数4

## 製品の概要

製品名 Alexa Fluor® 488 Anti-Ki67 antibody [EPR3610]

製品の詳細 Alexa Fluor® 488 Rabbit monoclonal [EPR3610] to Ki67

Alexa Fluor® 488, Ex: 495nm, Em: 519nm

アプリケーション 適用あり: ICC/IF, Flow Cyt (Intra)

交差種: Human

非交差種: Mouse, Rat

Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

ICC/IF: HeLa cells, HAP1 WT and HAP1-Ki67 KO. Flow Cyt (intra): HeLa cells.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

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標識

種交差性

免疫原

ポジティブ・コントロール

特記事項

#### 製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.

Avoid freeze / thaw cycle. Store In the Dark.

**バッファー** pH: 7.40

Preservative: 0.02% Sodium azide

Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA

精製度 Protein A purified

**ポリ/モノ** モノクローナル

**クローン名** EPR3610

アイソタイプ lgG

#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab197234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
ICC/IF		1/100. This product gave a positive signal in HeLa cells fixed with 4% formaldehyde (10 - 20 min) and 100% methanol (5 min). If fixing cells in 4% PFA, it is recommended to permeabilized cells with 0.1% Triton-X for 5 min.
Flow Cyt (Intra)		1/50.

## ターゲット情報

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.

Contains 16 K167R repeats.

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

## 翻訳後修飾

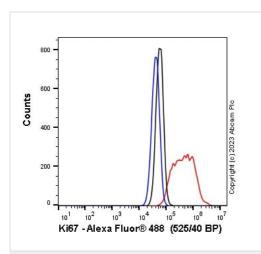
#### 細胞内局在

structures in fibrillarin-deficient regions surrounding nucleoli (PubMed:2674163, PubMed:8799815).

Phosphorylated. Hyperphosphorylated in mitosis (PubMed:10502411, PubMed:10653604). Hyperphosphorylated form does not bind DNA.

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



Flow Cytometry (Intracellular) - Alexa Fluor® 488 Anti-Ki67 antibody [EPR3610] (ab197234)

Flow cytometry overlay histogram showing HeLa cells stained with ab197234 (red line). The cells were fixed with 4% formaldehyde (10 min) and then permeabilised with 0.1% PBS-Triton X-100 for 15 min. The cells were incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab197234) (1x  $10^6$  in  $100\mu$ l at  $1\mu$ g/ml (1/500)) for 30min at  $22^{\circ}$ C.

Isotype control antibody (black line) was Alexa Fluor<sup>®</sup> 488 Rabbit IgG, monoclonal [EPR25A] - Isotype Control used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

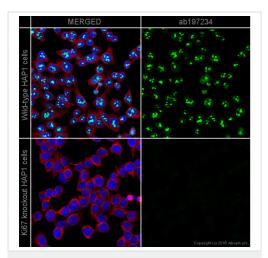
ab197234 ab195889

Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-Ki67 antibody [EPR3610] (ab197234)

ab197234 staining Ki67 in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab197234 at a 1/100 dilution (shown in green) and <a href="mailto:ab195889">ab195889</a>, Mouse monoclonal to alpha Tubulin (Alexa Fluor<sup>®</sup> 594), at a 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This product also gave a positive signal under the same testing conditions in HeLa cells fixed with 100% methanol (5 min).



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-Ki67 antibody [EPR3610] (ab197234)

ab197234 staining Ki67 in wild-type HAP1 cells (top panel) and Ki67 knockout HAP1 cells (bottom panel). The cells were fixed with 100% methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab197234 at 1/100 dilution (shown in green) and ab195889 at 1/250 dilution (shown in pseudo colour red) overnight at +4°C. Nuclear DNA was labelled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



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