# abcam

## Product datasheet

## Alexa Fluor® 594 Anti-Ki67 antibody [EPR3610] ab216709





重组 RabMAb

2 References 4 图像

概述

产品名称 Alexa Fluor® 594荧光Anti-Ki67抗体[EPR3610]

Alexa Fluor® 594荧光兔单克隆抗体[EPR3610] to Ki67 描述

宿主 Rabbit

偶联物 Alexa Fluor® 594. Ex: 590nm, Em: 617nm

经测试应用 适用于: Flow Cyt (Intra), ICC

种属反应性 与反应: Human

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

阳性对照 ICC: HeLa cells, HAP1 cells (HAP1-Ki67 knockout cells used as negative cell line). Flow Cyt

(intra): HeLa cells

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

- 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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#### 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.

Avoid freeze / thaw cycle. Store In the Dark.

**存储溶液** pH: 7.40

Preservative: 0.02% Sodium azide

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

纯**度** Protein A purified

 克隆
 单克隆

 克隆编号
 EPR3610

应用

同种型

### The Abpromise guarantee Abpromise™承诺保证使用ab216709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。

ΙgG

应用	Ab评论	说明
Flow Cyt (Intra)		1/500.
ICC		1/100 - 1/500.  If fixing cells in 4% PFA, it is recommended to permeabilized cells with 0.1% Triton-X for 5 min.

#### 靶标

## 功能

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.

序列相似性 Contains 1 FHA domain.

Contains 16 K167R repeats.
Contains 1 PP1-binding domain.

发展阶段

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,

PubMed:8799815).

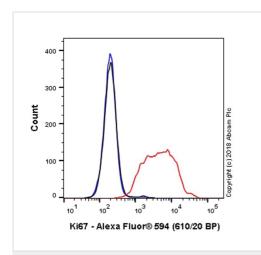
#### 翻译后修饰

#### 细胞定位

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).

#### 图片

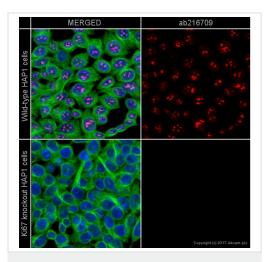


Flow Cytometry (Intracellular) - Alexa Fluor® 594 Anti-Ki67 antibody [EPR3610] (ab216709)

Overlay histogram showing HeLa cells stained with ab216709 (red line). The cells were fixed with 4% formaldehyde (10 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab216709, 1/500 dilution) for 30 min at 22°C.

Isotype control antibody (black line) was Rabbit IgG (monoclonal) Alexa Fluor<sup>®</sup> 594 (<u>ab208568</u>) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

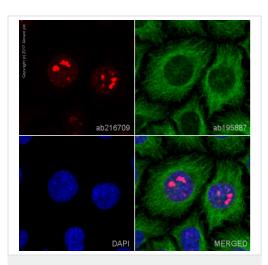
Acquisition of >5,000 events were collected using a 50 mW Yellow/Green laser (561nm) and 610/20 bandpass filter.



Immunocytochemistry - Alexa Fluor® 594 Anti-Ki67 antibody [EPR3610] (ab216709)

ab216709 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 overnight at +4°C with ab216709 at a 1/500 dilution (pseudocolored in red) and ab195887, Mouse monoclonal [DM1A] to Tubulin (Alexa Fluor® 488), at a 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue). This product also gave a positive signal under the same testing conditions in HAP1 cells fixed with 4% formaldehyde (10 min).

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

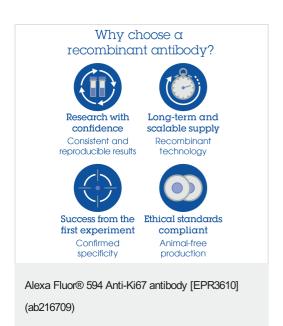


Immunocytochemistry - Alexa Fluor® 594 Anti-Ki67 antibody [EPR3610] (ab216709)

ab216709 staining Ki67 in HeLa cells. The cells were fixed with 100% methanol (5 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 ab216709 at 1/100 dilution (pseudocolored in red) and ab195887, Mouse monoclonal to alpha Tubulin (Alexa Fluor<sup>®</sup> 488), at 1/250 dilution (shown in green). 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 4% formaldehyde (10 min).



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