

Anti-Ki67 antibody [B56] ab279653

敲除验证
重组

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概述

产品名称	Anti-Ki67抗体[B56]
描述	小鼠单克隆抗体[B56] to Ki67
宿主	Mouse
经测试应用	适用于: Flow Cyt (Intra), IHC-P, ICC/IF 不适用于: WB
种属反应性	与反应: Mouse, Rat, Human
免疫原	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
阳性对照	IHC-P: Human colon, ovarian carcinoma, Mouse colon, breast carcinoma, Rat colon tissues. ICC/IF: HeLa cells. Flow Cyt: HeLa cells.
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here .

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 long term. Avoid freeze / thaw cycle.
存储溶液	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
纯度	Protein A purified
克隆	单克隆
克隆编号	B56
同种型	IgG1
轻链类型	kappa

应用

The Abpromise guarantee

Abpromise™ 承诺保证使用ab279653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。

应用	Ab评论	说明
Flow Cyt (Intra)		1/1000.
IHC-P		1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/50.

应用说明

Is unsuitable for WB.

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

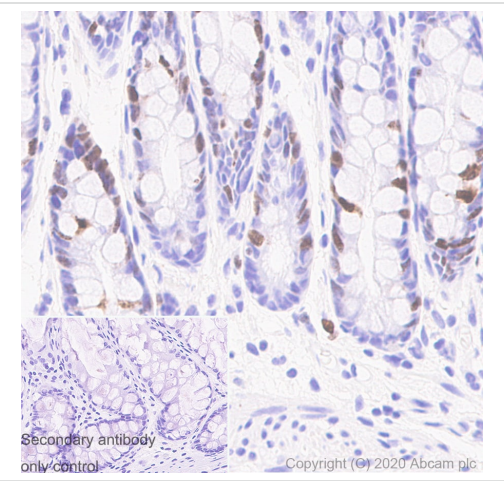
Expression occurs preferentially during late G1, S, G2 and M phases of the cell cycle, while in cells in G0 phase the antigen cannot be detected (at protein level) (PubMed:6206131). Present at highest level in G2 phase and during mitosis (at protein level). In interphase, forms fiber-like structures in fibrillarin-deficient regions surrounding nucleoli (PubMed:2674163, PubMed:8799815).

翻译后修饰

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

细胞定位

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).

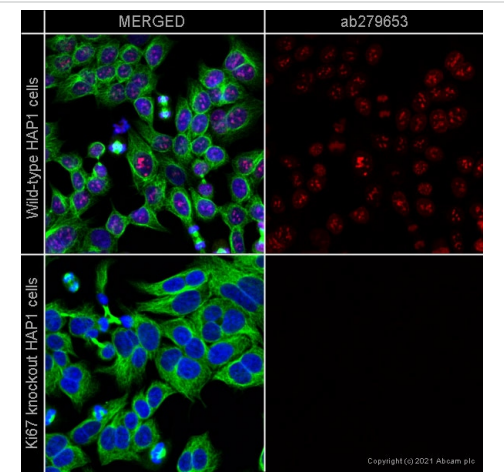


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 antibody (ab279653)

Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling Ki67 with ab279653 at 1/1000 dilution (0.936 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on human colon. The section was incubated with ab279653 for 30 mins at room temperature and followed by mouse specific IgG antibody (**ab125913**) for 8 mins. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

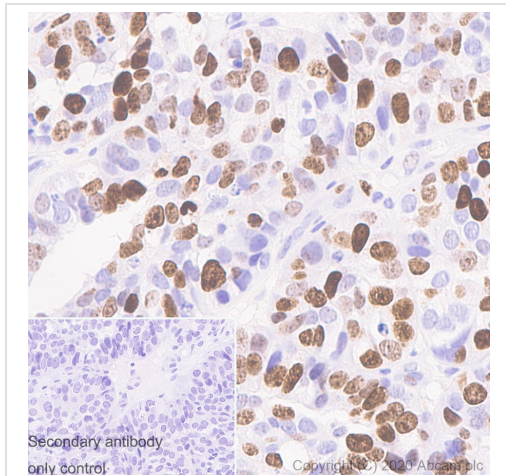


Immunocytochemistry/ Immunofluorescence - Anti-Ki67 antibody [B56] (ab279653)

ab279653 staining Ki67 in wild-type Hap1 cells, with negative expression in Ki67 knockout Hap1 cells. The cells were fixed with 100% methanol (5 min), permeabilised 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 ab279653 at 5 µg/ml and **ab6046**, Rabbit polyclonal to beta Tubulin at 1 µg/ml. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150119**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 647), pre-adsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a confocal microscope (Leica-Microsystems TCS SP8) and a single confocal section is shown.

This product also work with 4% formaldehyde (10 min) fixation under the same testing conditions.

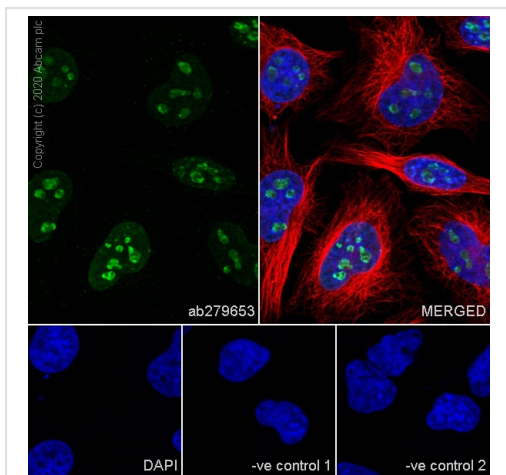


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 antibody (ab279653)

Immunohistochemical analysis of paraffin-embedded Human ovarian carcinoma tissue labeling Ki67 with ab279653 at 1/1000 dilution (0.936 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on human ovarian carcinoma. The section was incubated with ab279653 for 30 mins at room temperature and followed by mouse specific IgG antibody (**ab125913**) for 8mins. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

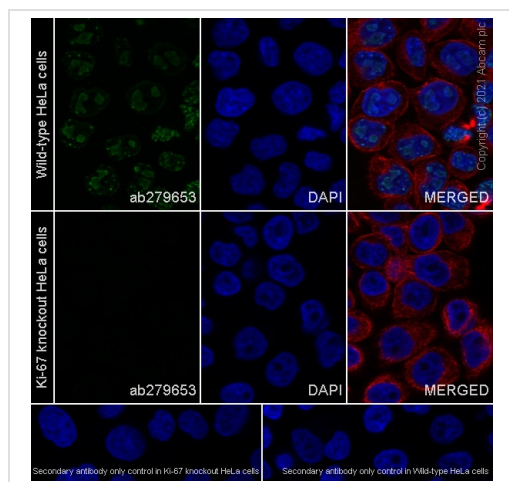
Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Immunocytochemistry/ Immunofluorescence - Anti-Ki67 antibody [B56] (ab279653)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling Ki67 with ab279653 at 1/50 (18.72 ug/ml) dilution, followed by **ab150113** Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing nucleolar staining in HeLa cell line **ab179513** Anti-beta Tubulin rabbit monoclonal antibody was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).

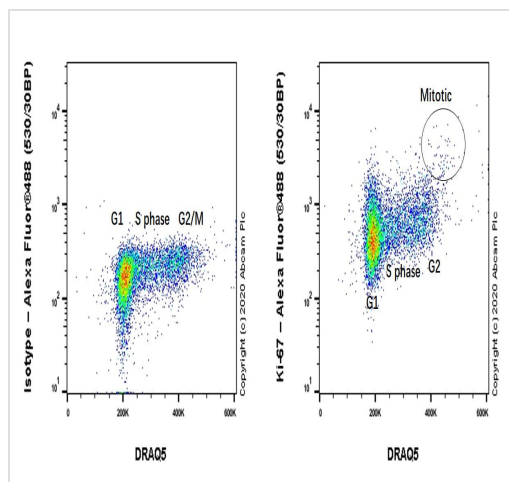
Secondary antibody only control: Secondary antibody is **ab150113** Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Ki67 antibody [B56] (ab279653)

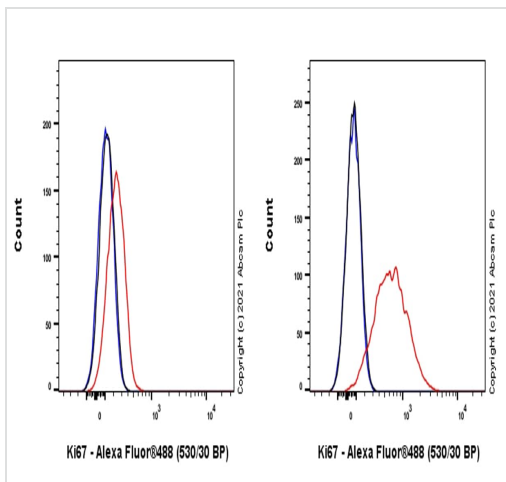
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized wild-type HeLa (Human cervix adenocarcinoma epithelial cell) cells and Ki67 KO HeLa cells labelling Ki67 with ab279653 at 1/50 dilution (18.72 ug/ml), followed by **ab150113** Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing nucleolar staining in Parental HeLa cell line and no staining in MKi67 HeLa KO cell line. **ab179513** Anti-beta Tubulin rabbit monoclonal antibody at 1/200 dilution followed by **ab150080** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) at 1/500 dilution was used to counterstain tubulin (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150113** Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



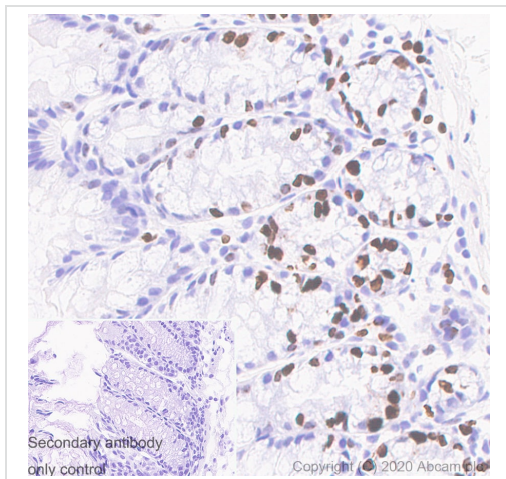
Flow Cytometry (Intracellular) - Anti-Ki67 antibody [B56] (ab279653)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling Ki67 with ab279653 at 1/1000 dilution (0.1ug)/ Right compared with a Mouse monoclonal IgG / Left isotype control. A Goat anti mouse IgG (Alexa Fluor® 488, **ab150113**) at 1/2000 dilution was used as the secondary antibody.



Flow Cytometry (Intracellular) - Anti-Ki67 antibody [B56] (ab279653)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Parental HeLa (Human cervix adenocarcinoma epithelial cells) (Right)/ MKI67 KO HeLa cells (Left) labelling Ki67 with ab279653 at 1/1000 dilution (0.1ug) (Red) compared with a Mouse monoclonal IgG (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti mouse IgG (Alexa Fluor® 488, **ab150113**) at 1/2000 dilution was used as the secondary antibody.

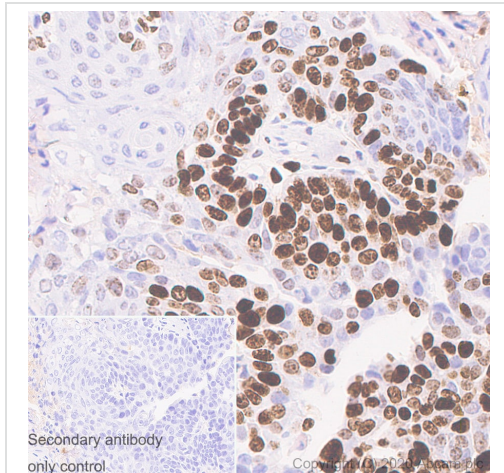


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 antibody (ab279653)

Immunohistochemical analysis of paraffin-embedded Mouse colon tissue labeling Ki67 with ab279653 at 1/1000 dilution (0.936 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on mouse colon. The section was incubated with ab279653 for 30 mins at room temperature and followed by mouse specific IgG antibody (**ab125913**) for 8 mins. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

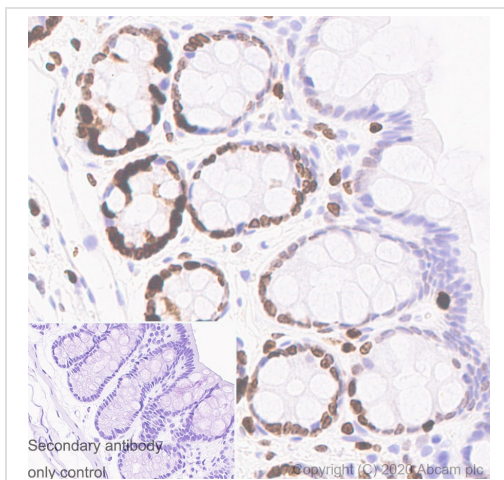


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 antibody (ab279653)

Immunohistochemical analysis of paraffin-embedded Mouse breast carcinoma tissue labeling Ki67 with ab279653 at 1/1000 dilution (0.936 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on mouse breast carcinoma. The section was incubated with ab279653 for 30 mins at room temperature and followed by mouse specific IgG antibody (**ab125913**) for 8 mins. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.







Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 antibody (ab279653)

Immunohistochemical analysis of paraffin-embedded Rat colon tissue labeling Ki67 with ab279653 at 1/1000 dilution (0.936 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on rat colon. The section was incubated with ab279653 for 30 mins at room temperature and followed by mouse specific IgG antibody (**ab125913**) for 8 mins. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-Ki67 antibody (ab279653)

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