

## Product datasheet

# Anti-Ki67 antibody [EPR3610] (Alexa Fluor® 647) ab196907

**KO VALIDATED** Recombinant RabMAb

2 Images

### Overview

<b>Product name</b>	Anti-Ki67 antibody [EPR3610] (Alexa Fluor® 647)
<b>Description</b>	Rabbit monoclonal [EPR3610] to Ki67 (Alexa Fluor® 647)
<b>Host species</b>	Rabbit
<b>Conjugation</b>	Alexa Fluor® 647. Ex: 652nm, Em: 668nm
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide within Human Ki67 aa 1050-1150. The exact sequence is proprietary.
<b>Positive control</b>	ICC/IF: HeLa and wild-type HAP1 cells.
<b>General notes</b>	<p>Alternative versions available:  <a href="#">Anti-Ki67 antibody [EPR3610] (ab92742) - Knockout validated</a></p> <p>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMab® patents</a>.</p> <p>Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: (i) in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or <a href="mailto:outlicensing@thermofisher.com">outlicensing@thermofisher.com</a>.</p> <p>This product is a <a href="#">recombinant rabbit monoclonal antibody</a>.</p>

### Properties

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C. Store In the Dark.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol, 1% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR3610
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab196907** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

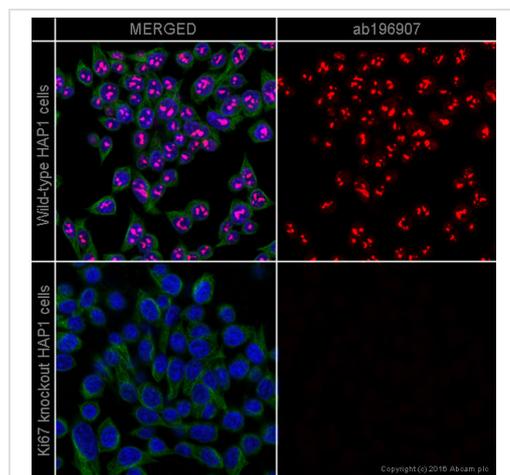
Application	Abreviews	Notes
ICC/IF		1/100.

## Target

<b>Function</b>	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.
<b>Sequence similarities</b>	Contains 1 FHA domain. Contains 16 K167R repeats. Contains 1 PP1-binding domain.
<b>Developmental stage</b>	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 fibrillar-deficient regions surrounding nucleoli (PubMed:2674163, PubMed:8799815).
<b>Post-translational modifications</b>	Phosphorylated. Hyperphosphorylated in mitosis (PubMed:10502411, PubMed:10653604). Hyperphosphorylated form does not bind DNA.
<b>Cellular localization</b>	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).

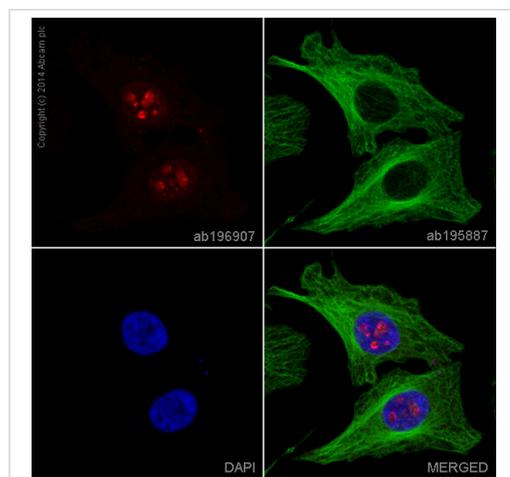
## Images



Immunocytochemistry/ Immunofluorescence - Anti-Ki67 antibody [EPR3610] (Alexa Fluor® 647) (ab196907)

ab196907 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 ab196907 at 1/100 dilution (shown in red) and ab195887 at 1/250 dilution (shown in green) overnight at +4°C. Nuclear DNA was labelled in blue with DAPI.

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



Immunocytochemistry/ Immunofluorescence - Anti-Ki67 antibody [EPR3610] (Alexa Fluor® 647) (ab196907)

ab196907 staining Ki67 in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized in 0.1% Triton X-100 for 5 minutes and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab196907 at 1/100 dilution (shown in red) and ab195887, Mouse monoclonal [DM1A] to alpha Tubulin (Alexa Fluor® 488, shown in green) at 1/167 dilution, overnight at +4°C. Nuclear DNA was labelled in blue with DAPI.

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

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

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

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