

Product datasheet

Anti-Ki67 antibody [BLR021E] ab243878

Recombinant

[9 References](#) [6 Images](#)

Overview

Product name	Anti-Ki67 antibody [BLR021E]
Description	Rabbit monoclonal [BLR021E] to Ki67
Host species	Rabbit
Tested applications	Suitable for: IHC-P, ICC, ICC/IF, Flow Cyt
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human Ki67 aa 1200-1250. The exact sequence is proprietary. Corresponds to the repetitive 66 bp element. NP_002408.2 and Gene ID 4288. Database link: P46013
Positive control	IHC-P: Human tonsil and ovarian carcinoma tissue. ICC: OVCAR-4 cells. ICC/IF: Acetone/methanol fixed Hela cells. Flow Cyt: MOLT4 cells.
General notes	This product is sold under License from Bethyl Laboratories, Inc.

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.8 Preservative: 0.09% Sodium azide Constituents: 98% Borate buffered saline, 0.1% BSA
Purification notes	Recombinant antibody was purified from cell culture supernatant.
Clonality	Monoclonal
Clone number	BLR021E
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab243878 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
IHC-P		1/100 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC		1/100 - 1/500. Epitope retrieval with citrate buffer pH 6.0 is recommended for FFPE cell sections.
ICC/IF		1/100 - 1/500.
Flow Cyt		Use 1µl for 10 ⁶ cells.

Target

Function

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.

Sequence similarities

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

Developmental stage

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).

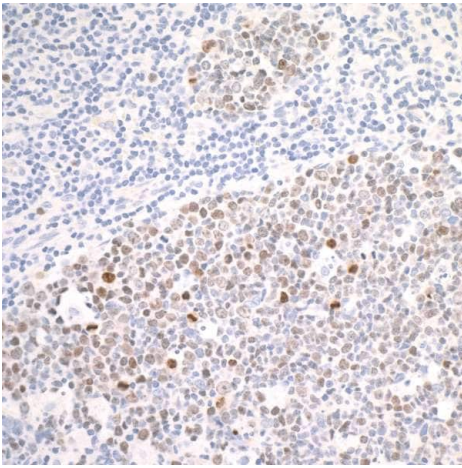
Post-translational modifications

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

Cellular localization

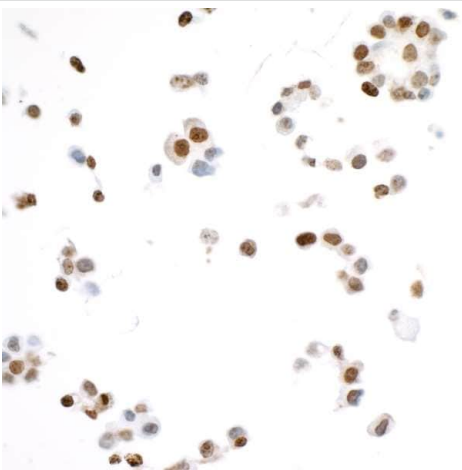
Chromosome. Nucleus. Nucleus, nucleolus. Associates with the surface of the mitotic chromosome, the perichromosomal layer, and covers a substantial fraction of the mitotic chromosome surface (PubMed:27362226). Associates with satellite DNA in G1 phase (PubMed:9510506). Binds tightly to chromatin in interphase, 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



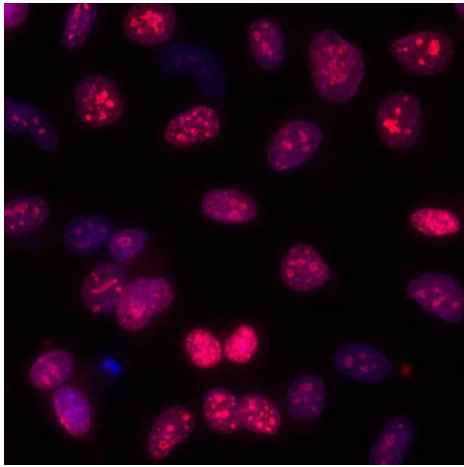
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 antibody [BLR021E] (ab243878)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human tonsil tissue, labeling Ki67 with ab243878. HRP-conjugated goat anti-rabbit IgG was used as a secondary antibody. Detection: DAB.



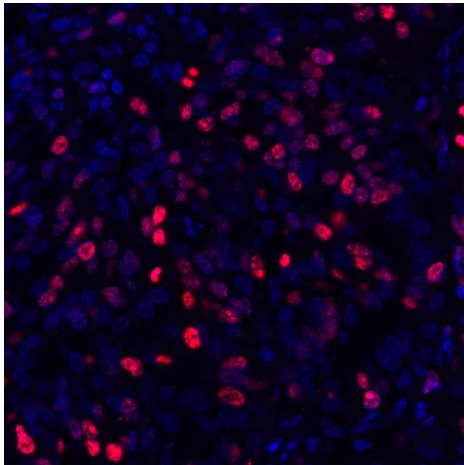
Immunocytochemistry - Anti-Ki67 antibody [BLR021E] (ab243878)

Immunocytochemical analysis of formalin-fixed, paraffin-embedded OVCAR-4 cells, labeling Ki67 with ab243878. HRP-conjugated goat anti-rabbit IgG was used as a secondary antibody. Detection: DAB.



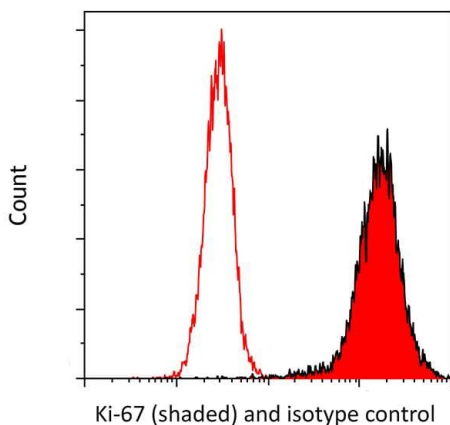
Immunocytochemistry/ Immunofluorescence - Anti-Ki67 antibody [BLR021E] (ab243878)

Immunocytochemical analysis of acetone/methanol fixed HeLa cells, labeling Ki67 with ab243878 at a 1/100 dilution. HRP-conjugated goat anti-rabbit IgG was used as a secondary antibody. Counterstain: DAPI.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 antibody [BLR021E] (ab243878)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human ovarian carcinoma tissue, labeling Ki67 with ab243878 at a 1/500 dilution. HRP-conjugated goat anti-rabbit IgG was used as a secondary antibody. Substrate: Opal™. Counterstain: DAPI (blue).



Flow Cytometry - Anti-Ki67 antibody [BLR021E] (ab243878)

Flow cytometric analysis of 4% formaldehyde and permeabilized with 90% methanol MOLT-4 (Human lymphoblastic leukemia cell line) cells labelling Ki67 with ab243878 at $1\mu\text{l}/10^6$ cells (Red shaded) compared with a Isotype control (unshaded). DyLight® 650-conjugated goat anti-rabbit IgG was used as the secondary antibody.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Ki67 antibody [BLR021E] (ab243878)

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

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