abcam

Storage instructions

Associated products

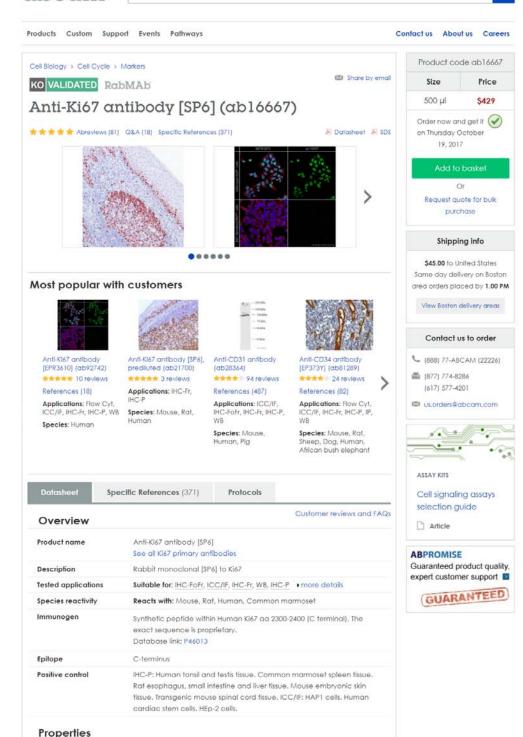
Storage buffer

Purity

Clonality

Clone number

Isotype Research areas e.g. p53, IL6 ELISA, inhibitor, or western blot



Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery

> Neuroscience + Cell Type Marker + Neuron marker + Soma marker > Tags & Cell Markers + Cell Type Markers + Replication > Neuroscience + Neurology process + Neurogenesis

aliquot. Store at -20°C. Avoid freeze / thaw cycle.

Preservative: 0.09% Sodium azide

Monoclonal

SP6

Constituents: 1% BSA. Tris buffered saline

> Cell Biology - Cell Cycle - Markers

Cancer - Cell cycle - Cell division
Cancer - Tumor biomarkers - Other

Compatible Secondaries > Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) > Goat Anti-Rabbit IgG H&L (HRP) (ab205718) Immunohistochemistry kits > EXPOSE Rabbit specific HRP/DAB detection IHC kit (ab80437) > Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) **Related Products** > Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) > Anti-PCNA antibody [PC10] (ab29) > Anti-BrdU antibody [BU1/75 (ICR1)] (ab6326) **Applications** Our Abpromise guarantee covers the use of ab16667 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 * * * * * 1/5000. IHC-FoFr Antigen retrieval: Boil tissue section in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at room temperature for 20 min. ★ ★ ★ ★ ★ 1/250. ICC/IF IHC-Fr ★ ★ ★ ★ 1/1000. A higher dilution is recommended for frozen tissues than for FFPE tissues. We suggest a starting dilution of 1/500. WB Use at an assay dependent concentration. PubMed: 20562294 IHC-P ★★★★★ 1/100. **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. Contains 1 FHA domain. Sequence similarities 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). Blinds 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).

▼ Information by UniProt

Database links

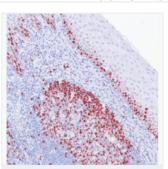
- 🖪 Entrez Gene: 4288 Human
- Entrez Gene: 17345 Mouse
- Entrez Gene: 246042 Rat
- ⊙ Omim: 176741 Human
- M SwissProt: P46013 Human
- SwissProt: E9PVX6 Mouse
- SwissProt: Q61769 Mouse
 Unigene: 689823 Human
- see all

Alternative names

Antigen identified by monoclonal antibody Ki 67 antibody Antigen identified by monoclonal antibody Ki-67 antibody

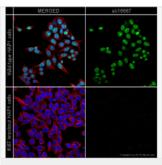
see all

Anti-Ki67 antibody [SP6] images



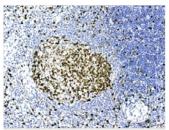
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 antibody (SP61 (ab16667)

Immunohistochemical analysis of human tonsil tissue labeling Ki-67 with ab16667 at 1/200. The HRP/AEC-staining procedure was used for detection.



Immunocytochemistry/ Immunofluorescence -Anti-Ki67 antibody [\$P6] (ab16667)

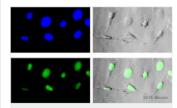
ab16667 staining Ki67 in wild-type HAP1 cells (top panel) and Ki67 knockout HAP1 cells (bottom panel). The cells were fixed with 100% methanol for 5 minutes, permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M alvoine in 0.1% PBS-Tween for 1 hour. The cells were then incubated with ab16667 at 1/250 dilution and ab195889 at 1/250 dilution (shown in pseudo colour red) overnight at +4°C, followed by a further incubation at room temperature for 1 hour with a goat secondary antibody to Rabbit IgG (Alexa Fluor® 488) (ab150081) at 2 μg/ml (shown in green). Nuclear DNA was labelled in blue with DAPI.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 [SP6] antibody (ab16667) Image courtesy of Carl Hobbs, Kings College London, U.K.

ab16667 staining Ki67 in common marmoset spleen by immunohistochemistry (formalin/PFA-fixed paraffin-embedded sections). Tissue was fixed with formaldehyde and a heat mediated antigen retrieval step was performed using citrate buffer. Samples were then blocked with 1% BSA for 10 minutes at 21°C followed by incubation with the primary antibody for 2 hours at 1/100. A biotinconjugated goat anti-rabbit polyclonal was used as secondary antibody at a 1/250 dilution.

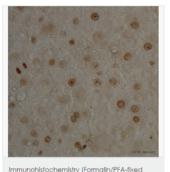
See Abreview



Immunocytochemistry/ Immunofluorescence -Anti-Ki67 antibody [SP6] (ab16667) This image is courtesy of an anonymous abreview.

Immunocytochemistry/ Immunofluorescence analysis of human cardiac stem cells labeling Ki67 with ab16667 at 1/250 dilution. Cells were fixed in paraformaldehyde and permeabilized with Triton x-100, 0.01%. Cells were blocked in BSA for 1 hour at room temperature. A polyclonal chicken anti-rabbit Alex Fluor® 488 secondary antibody was used at 1/500 dilution.

See Abreview



ab 16667 staining Ki67 in rat liver tissue sections by immunohistochemistry (IHC-P - formaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 1% BSA for 2 hours at 22°C. Samples were incubated with primary antibody (1/500 in PBS-T + 1% BSA) for 18 hours at 4°C. A biotin-conjugated goat anti-rabbit IgG monoclonal (1/2000) was used as the secondary antibody.

See Abreview

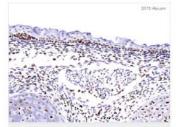
paraffin-embedded sections) - Anti-Ki67 antibody [SP6] (ab16667) This image is courtesy of an anonymous Abrevier



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KI67 [SP6] antibody (ab18687)

Image Courtesy of Carl Hobbs. King College London, U.K. ab16667 staining Ki67 in human testis by Immunchistochemistry (Formalin/PFA-fixed paraffin-embedded sections). Tissue was fixed with formaldehyde and a heat mediated antigen retifieval step was performed using citrate buffer. Samples were then blocked with 1% BSA for 10 minutes at 21°C followed by incubation with the primary antibody for 2 hours at 1/100. A biotin-conjugated goat antirabbit polyclonal was used as secondary antibody at a 1/250 dilution.

See Abreview



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 [SP6] antibody (ab16667)

Image Courtesy of Carl Hobbs, Kings College London, U.K. ab 16667 staining Ki67 in mouse embryonic skin tissue by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). Tissue was ixed with formaldehyde and a heat mediated antigen retrieval step was performed using citrate buffer. Samples were then blocked with 1% BSA for 10 minutes at 21°C followed by incubation with the primary antibody for 16 hours at 1/50. A biotin-conjugated goal antirabbit polyclonal was used as secondary antibody at a 1/250 dilution.

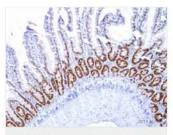
See Abreview



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KI67 [SP6] antibody (ab16667)

Image courtesy of Carl Hobbs, Kings College London, U.K. ab 16667 staining Ki67 in rat oesophagus by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). Tissue was fixed with formaldehyde and a heat mediated antigen retrieval step was performed using citrate buffer. Samples were then blocked with 1% BSA for 10 minutes at 21°C followed by incubation with the primary antibody for 30 minutes at 1/100. A biotin-conjugated goat anti-rabbit polyclonal was used as secondary antibody at a 1/250 dilution.

See Abreview

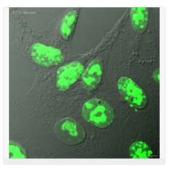


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ki67 antibody [SP6] (ab16667)

Image courtesy of Jing Ma by Abreview.

ab 16667 staining Ki67 in rat small intestine tissue by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). Tissue was fixed with formaldehyde and a heat mediated antigen retrieval step was performed using 10 mM citrate buffer pH 6.0. Samples were then blocked with 10% serum for 20 minutes at room temperature followed by incubation with the undiluted primary antibody for 30 minutes. A biotin-conjugated goat anti-rabbit polyclonal was used as secondary antibody at a 1/2000 dilution.

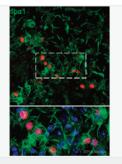
See Abreview



ab16667 staining Ki67 - Proliferation Marker in human HEp-2 cells by ICC/IF (Immunocytochemistry/immunofluorescence), Cells were fixed with paraformaldehyde and permeabilized with Triton X-100 0.25% in PBS, Samples were incubated with primary antibody (1/50 in DPBS) for 1 hour at 21°C. An Atto488-conjugated Donkey anti-rabbit polyclonal (1/50) was used as the secondary antibody.

See Abreview

Immunocytochemistry/ Immunofluorescence -Anti-Ki67 antibody (SP6) (ab16667) This image is courtesy of an Abreview submitted by Peter Zentis



frozen sections) - Anti-Ki67 antibody [SP6] (ab16667)

This image is courtesy of an anonymous Abreview

ab16667 staining Ki67 (red) in transgenic mouse spinal cord tissue sections (depleted of oligodendrocytes) by Immunohistochemistry (PFA perfusion fixed frozen sections). Tissue samples were fixed by perfusion with paraformaldehyde, permeablized with 0.5% Triton X-100 and blocked with 10% serum for 1 hour at 25°C; antigen retrieval was by heat mediation in 10 mM citrate buffer, pH 6, for 20 minutes at 97°C in a water bath. The sample was incubated with primary antibody (1/300 in PBS + 0.1% Triton X-100 + 1% serum) at 25°C for 16 hours. An Alexa Fluor® 594-conjugated donkey anti-rabbit IgG (H+L) polyclonal (1/700) was used as the secondary antibody. Counterstained with Iba1 (green) a marker for microalia and DAPI.

Protocols

Immunohistochemistry protocols

Immunocytochemistry & immunofluorescence protocols

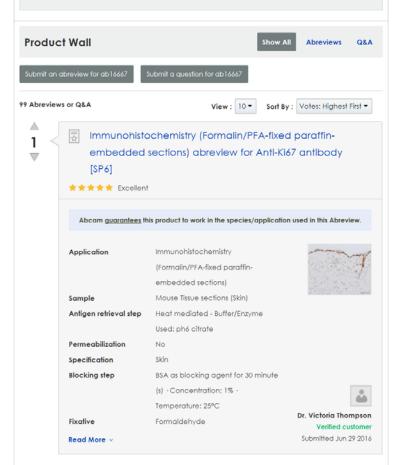
Western blot protocols

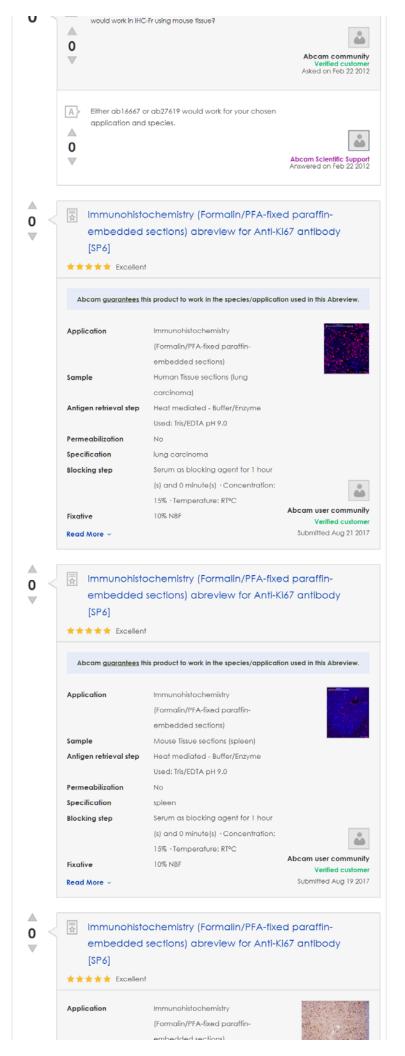
References for Anti-Ki67 antibody [SP6] (ab16667)

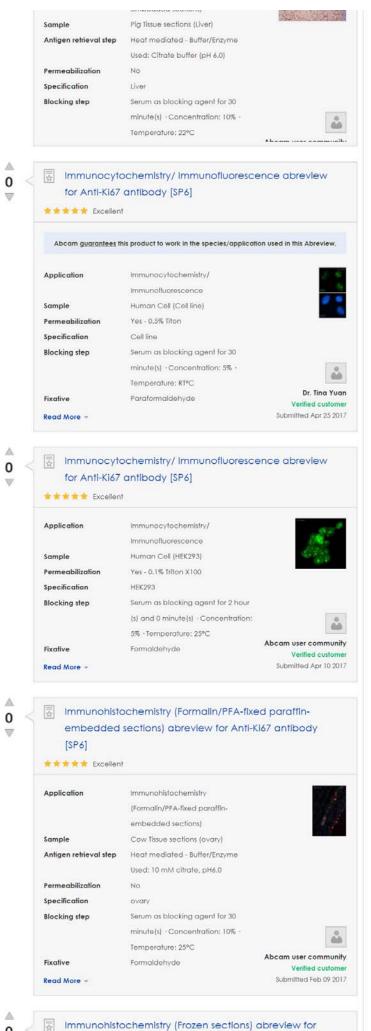
This product has been referenced in:

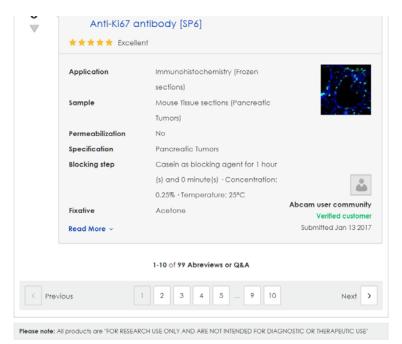
- Fernández-Gil B et al. Melatonin protects rats from radiotherapy-induced small intestine toxicity. PLoS One 12:e0174474 (2017). IHC-P; Rat. Read more (PubMed: 28403142) »
- M. Liu Q et al. Plasmodium parasite as an effective hepatocellular carcinoma antigen glypican-3 delivery vector. Oncotarget 8:24785-24796 (2017). IHC . Read more (PubMed: 28445973) »

Publishing research using ab16667? Please let us know so that we can cite the reference in this datasheet









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