

Anti-KI67 Mouse mAb
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP53487

Specification

Anti-KI67 Mouse mAb - Product Information

Application	IHC
Primary Accession	P46013
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Immunogen	Synthetic peptide corresponding to aa (CEDLAGFKELFQTPG) of human KI67, conjugated to KLH.
Purification	Acites
Calculated MW	358kDa KDa

Anti-KI67 Mouse mAb - Additional Information

Gene ID 4288

Other Names
KIA; Ki-67; MKI67

Dilution
IHC~~1:400

Format
Ascitic fluid containing 0.09% (W/V) sodium azide.

Storage
Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Anti-KI67 Mouse mAb - Protein Information

Name MKI67 ([HGNC:7107](#))

Function
Required to maintain individual mitotic chromosomes dispersed in the cytoplasm following nuclear envelope disassembly (PubMed: [27362226](http://www.uniprot.org/citations/27362226)). Associates with the surface of the mitotic chromosome, the perichromosomal layer, and covers a substantial fraction of the chromosome surface (PubMed: [27362226](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/27362226)). Binds DNA, with a preference for supercoiled DNA and AT-rich DNA (PubMed: [27362226](http://www.uniprot.org/citations/27362226)).

[10878551](http://www.uniprot.org/citations/10878551)). Does not contribute to the internal structure of mitotic chromosomes (By similarity). May play a role in chromatin organization (PubMed:[24867636](http://www.uniprot.org/citations/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 (Probable).

Cellular Location

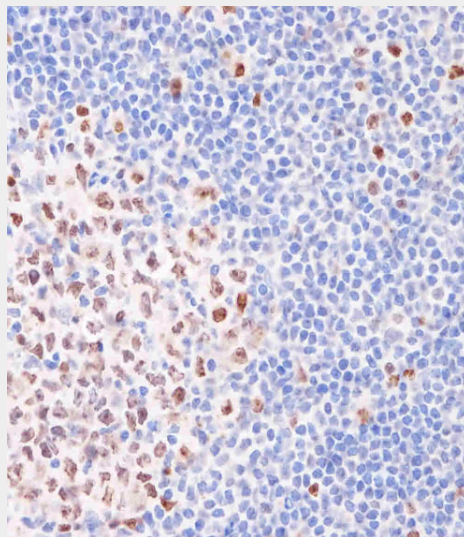
Chromosome. Nucleus. Nucleolus Note=Associates with the surface of the mitotic chromosome, the perichromosomal layer, and covers a substantial fraction of the mitotic chromosome surface (PubMed:27362226). Associates with satellite DNA in G1 phase (PubMed:9510506). Binds tightly to chromatin in interphase,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

Anti-KI67 Mouse mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-KI67 Mouse mAb - Images



Immunohistochemical analysis of Ki-67 in Human tonsil tissue sections (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde at room temperature; antigen retrieval was by heat mediation with a EDTA buffer (pH9.0). Samples were incubated with primary antibody (1/400) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

Anti-Ki67 Mouse mAb - Background

Ki67, also known as MKI67, it is the prototypic cell cycle related nuclear protein, expressed by proliferating cells in all phases of the active cell cycle (G1, S, G2 and M phase). It is absent in resting (G0) cells. Ki67 antibodies are useful in establishing the cell growing fraction in neoplasms (immunohistochemically quantified by determining the number of Ki67 positive cells among the total number of resting cells = Ki67 index). In neoplastic tissues the prognostic value is comparable to the tritiated thymidine labelling index. The correlation between low Ki67 index and histologically low grade tumours is strong. Ki67 is routinely used as a neuronal marker of cell cycling and proliferation.