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Recombinant ki-67 antibody [176B3C4]

Catalog # AP80071

Specification

Recombinant ki-67 antibody [176B3C4] - Product Information

Application	**IHC-P,E**
Primary Accession	P46013
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**358694**

Recombinant ki-67 antibody [176B3C4] - Additional Information

Gene ID 4288

Target/Specificity
Recombinant anti-Ki-67 monoclonal antibody recognizes endogenous levels of total Ki-67 protein.

Dilution
IHC-P~~1:1000

Format
Purified recombination monoclonal antibody supplied in PBS with 0.05% (W/V) Proclin300, and 0.05% BSA. This antibody is purified through a protein A column.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Recombinant ki-67 antibody [176B3C4] is for research use only and not for use in diagnostic or therapeutic procedures.

Recombinant ki-67 antibody [176B3C4] - Protein Information

Name MKI67 (HGNC:7107)

Function Protein that associates with the surface of mitotic chromosomes and acts both as a chromosome repellent during early mitosis and chromosome attractant during late mitosis (PubMed:27362226, PubMed:32879492, PubMed:35513709, PubMed:39153474). Required to maintain individual mitotic chromosomes dispersed in the cytoplasm following nuclear envelope disassembly (PubMed:27362226). During early mitosis, relocalizes from nucleoli to the chromosome surface where it forms extended brush structures that cover a substantial fraction of the chromosome surface (PubMed:27362226). The MKI67 brush structure 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). During mitotic anaphase, the MKI67 brush structure collapses and MKI67 switches from a chromosome repellent to a chromosome attractant to promote chromosome clustering and facilitate the exclusion of large cytoplasmic particles from the future nuclear space (PubMed:32879492, PubMed:39153474). Mechanistically, dephosphorylation during mitotic exit and simultaneous exposure of a conserved basic patch induce the RNA-dependent formation of a liquid- like condensed phase on the chromosome surface, promoting coalescence of neighboring chromosome surfaces and clustering of chromosomes (PubMed:39153474). Binds premature ribosomal RNAs during anaphase; promoting liquid-liquid phase separation (PubMed:28935370, PubMed:39153474). 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; it is however unclear whether it plays a direct role in chromatin organization or whether it is an indirect consequence of its function in mitotic chromosome (PubMed:24867636).

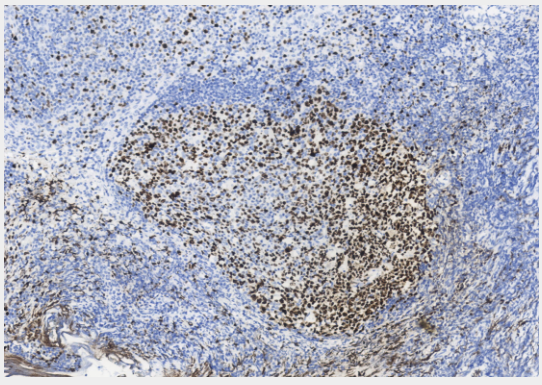
Cellular Location
Chromosome. Nucleus. Nucleus, nucleolus. Note=During early mitosis, relocalizes from nucleoli to the surface of the mitotic chromosome, the perichromosomal layer, and covers a substantial fraction of the mitotic chromosome surface (PubMed:27362226) Associates with satellite DNA in G1 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)

Recombinant ki-67 antibody [176B3C4] - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Recombinant ki-67 antibody [176B3C4] - Images



Immunohistochemical analysis of paraffin-embedded human tonsil tissue using AP80071 performed on the Abcarta® FAIP-30 Fully automated IHC platform.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 for 15 min at room temperature. AmpSeeTM Detection Systems□Abcepta:ADR005□ was used as the secondary antibody.