

Ki-67(MKI67) Protein, Human (His)

Cat. No.:	HY-P700257
Synonyms:	
Species:	Mouse
Source:	E. coli
Accession:	P46013 (V2962-E3254)
Gene ID:	4288
Molecular Weight:	36.7kDa

PROPERTIES

AA Sequence	<pre>V L R A P K V E P V G D V V S T R D P V K S Q S K S N T S L P P L P F K R G G G K D G S V T G T K R L R C M P A P E E I V E E L P A S K K Q R V A P R A R G K S S E P V V I M K R S L R T S A K R I E P A E E L N S N D M K T N K E E H K L Q D S V P E N K G I S L R S R R Q N K T E A E Q Q I T E V F V L A E R I E I N R N E K K P M K T S P E M D I Q N P D D G A R K P I P R D K V T E N K R C L R S A R Q N E S S Q P K V A E E S G G Q K S A K V L M Q N Q K G K G E A G N S D S M C L R S R K T K S Q P A A S T L E S K S V Q R V T R S V K R C A E N P K K A E D N V C V K K I R T R S H R D S E</pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against Tris-based buffer, 50% glycerol.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>The Ki67/MKI67 protein is essential for maintaining the dispersion of individual mitotic chromosomes in the cytoplasm following nuclear envelope disassembly. Positioned on the surface of the mitotic chromosome, specifically within the perichromosomal layer, Ki67/MKI67 covers a significant fraction of the chromosome surface, preventing the collapse of chromosomes into a singular chromatin mass. Functioning as a surfactant with a high net electrical charge, it establishes a steric and electrostatic charge barrier, facilitating independent chromosome motility. Ki67/MKI67 exhibits DNA-binding capabilities, displaying a preference for supercoiled DNA and AT-rich DNA. While it does not contribute to the internal structure of mitotic chromosomes, its role in chromatin organization remains uncertain, raising the possibility that this may</p>
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be an indirect consequence of its primary function in maintaining dispersed mitotic chromosomes. The protein interacts with various partners, including KIF15, NIFK, PPP1CC, and forms part of a complex involving ZNF335, HCFC1, CCAR2, EMSY, RBBP5, ASH2L, and WDR5, suggesting its involvement in intricate cellular processes and molecular networks.

Caution: Product has not been fully validated for medical applications. For research use only.

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