

Human Ki67 ELISA Kit ab253221

重组 SimpleStep ELISA

2 References 4 图像

概述

产品名称 人Ki67 ELISA试剂盒

检测方法 Colorimetric

批次内				
样品	n	Mean	SD	CV%
Extract	8			4.1%

批次间				
样品	n	Mean	SD	CV%
Extract	3			1.8%

样品类型 Cell Lysate

检测类型 Sandwich (quantitative)

灵敏度 21.2 pg/ml

范围 31.25 pg/ml - 2000 pg/ml

特定样本回收率		
样品类型	平均%	范围
Cell Lysate	108	101% - 116%

检测时间 1h 30m

实验步骤 One step assay

种属反应性 与反应: Human

产品概述 Human Ki67 ELISA Kit (ab253221) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Ki67 protein in cell lysate. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Ki67 with 21.2 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This

approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

## 说明

Ki67 is a nuclear marker protein that is commonly found in active proliferating cells. Encoded by the *MKI67* gene, Ki67 is expressed in all phases of the cell cycle except for resting cells in G<sub>0</sub> stage. Moreover, the presence of Ki67 protein is at its highest in the G2 phase and during mitosis. Studies have shown Ki67 to be an excellent antigen marker to determine the growth fraction of a given cell population. More particularly in cancer, which is subsequently correlated with the clinical course of action. The standard protein in ab253221 is an internal fragment comprising 7% of the full-length Ki67.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.

It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

## 平台

Pre-coated microplate (12 x 8 well strips)

## 性能

### 存放说明

Store at +4°C. Please refer to protocols.

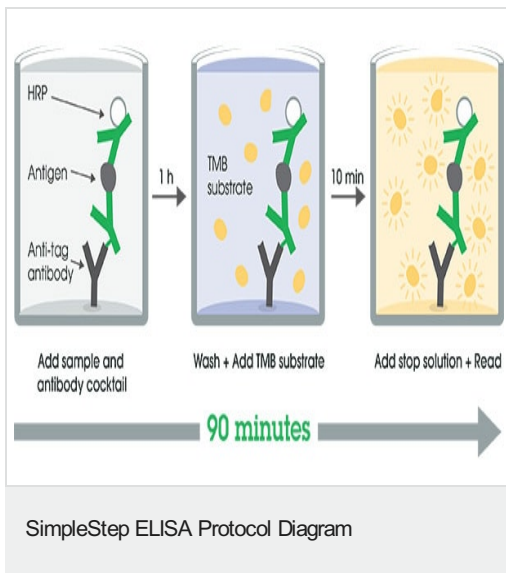
组件	1 x 96 tests	1 x 96 tests
10X Human Ki67 Capture Antibody	1 x 600µl	1 x 600µl
10X Human Ki67 Detector Antibody	1 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 20ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml	1 x 10ml
Antibody Diluent CPR2	1 x 6ml	1 x 6ml
Human Ki67 Lyophilized Recombinant Protein	2 vials	2 vials
Plate Seals	1 unit	1 unit
Sample Diluent NS (ab193972)	1 x 12ml	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 unit

组件	1 x 96 tests	1 x 96 tests
Stop Solution	1 x 12ml	1 x 12ml
TMB Development Solution	1 x 12ml	1 x 12ml

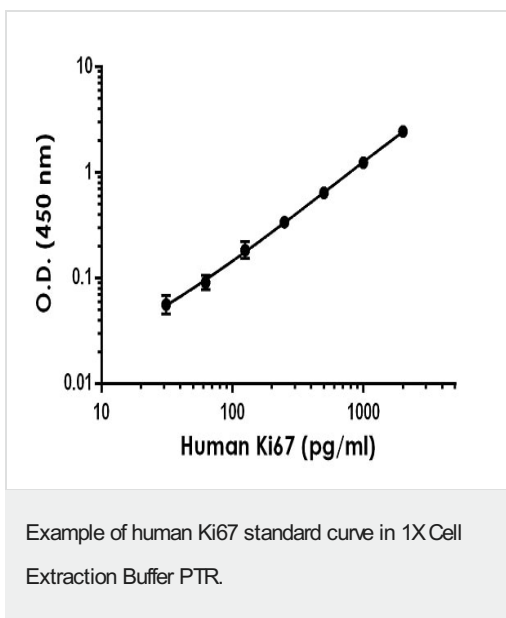
功能	Required to maintain individual mitotic chromosomes dispersed in the cytoplasm following nuclear envelope disassembly (PubMed:27362226). Associates with the surface of the mitotic chromosome, the perichromosomal layer, and covers a substantial fraction of the chromosome surface (PubMed:27362226). 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.
序列相似性	Contains 1 FHA domain. Contains 16 K167R repeats. Contains 1 PP1-binding domain.
发展阶段	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).
翻译后修饰	Phosphorylated. Hyperphosphorylated in mitosis (PubMed:10502411, PubMed:10653604). Hyperphosphorylated form does not bind DNA.
细胞定位	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).

图片

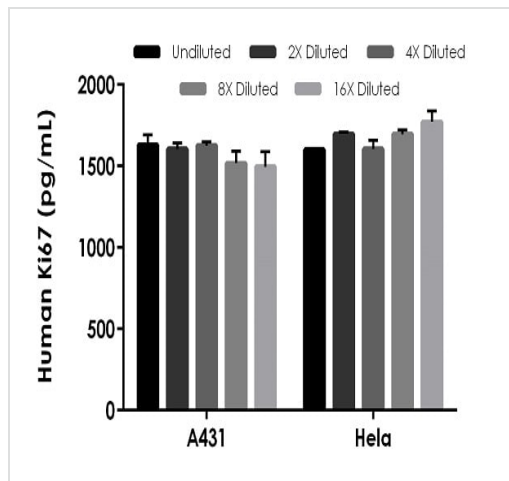
---



SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



The Ki67 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean  $\pm$  SD) are graphed.



Interpolated concentrations of native Ki67 in human A431 and Hela cell extracts based on a 250 µg/mL and 62.5 µg/mL extract load respectively.

The concentrations of Ki67 were measured in duplicate and interpolated from the Ki67 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD, n=2). The mean Ki67 concentration was determined to be 1,575.0 pg/mL in A431 and 1674.3 pg/mL in Hela.

Powered by  
recombinant antibodies

**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

Sandwich ELISA - Human Ki67 ELISA Kit  
(ab253221)

To learn more about the advantages of recombinant antibodies see [here](#).

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

#### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery

- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.cn/abpromise> or contact our technical team.

#### **Terms and conditions**

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors