abcam

Product datasheet

# Human STAG2 (SA2) knockout HeLa cell line ab265461

3 图像

## 概述

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| **产品名称** | 人STAG2 (SA2) knockout HeLa cell line |
| **Parental Cell Line** | HeLa |
| **Organism** | Human |
| **Mutation description** | Knockout achieved by using CRISPR/Cas9, Homozygous: Insertion of the selection cassette in exon 11 |
| **Passage number** | <20 |
| **Knockout validation** | Sanger Sequencing, Western Blot (WB) |
| **经测试应用** | **适用于:** WB |
| **Biosafety level** | 2 |
| **常规说明** | **Recommended control:** Human wild-type HeLa cell line (**ab255928**). Please note a wild-type cell line is not automatically included with a knockout cell line order, if required please add recommended wild-type cell line at no additional cost using the code WILDTYPE-TMTK1.<br><br>**Cryopreservation cell medium:** Cell Freezing Medium-DMSO Serum free media, contains 8.7% DMSO in MEM supplemented with methyl cellulose.<br><br>**Culture medium:** DMEM (High Glucose) + 10% FBS<br><br>**Initial handling guidelines:** Upon arrival, the vial should be stored in liquid nitrogen vapor phase and not at -80°C. Storage at -80°C may result in loss of viability.<br><br>1. Thaw the vial in 37°C water bath for approximately 1-2 minutes.<br>2. Transfer the cell suspension (0.8 mL) to a 15 mL/50 mL conical sterile polypropylene centrifuge tube containing 8.4 mL pre-warmed culture medium, wash vial with an additional 0.8 mL culture medium (total volume 10 mL) to collect remaining cells, and centrifuge at 201 x g (rcf) for 5 minutes at room temperature. 10 mL represents minimum recommended dilution. 20 mL represents maximum recommended dilution.<br>3. Resuspend the cell pellet in 5 mL pre-warmed culture medium and count using a haemocytometer or alternative cell counting method. Based on cell count, seed cells in an appropriate cell culture flask at a density of $2x10^4$ cells/$cm^2$. Seeding density is given as a guide only and should be scaled to align with individual lab schedules.<br>4. Incubate the culture at 37°C incubator with 5% $CO_2$. Cultures should be monitored daily.<br><br>**Subculture guidelines:**<br><br>All seeding densities should be based on cell counts gained by established methods.<br>A guide seeding density of $2x10^4$ cells/$cm^2$ is recommended.<br>A partial media change 24 hours prior to subculture may be helpful to encourage growth, if |

required.
Cells should be passaged when they have achieved 80-90% confluence.
This product is subject to limited use licenses from The Broad Institute, ERS Genomics Limited and Sigma-Aldrich Co. LLC, and is developed with patented technology. For full details of the licenses and patents please refer to our **limited use license** and **patent pages**.

We will provide viable cells that proliferate on revival.

## 性能

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| **Number of cells** | 1 x $10^6$ cells/vial, 1 mL |
| **Adherent /Suspension** | Adherent |
| **Tissue** | Cervix |
| **Cell type** | epithelial |
| **Disease** | Adenocarcinoma |
| **Gender** | Female |
| **STR Analysis** | Amelogenin X D5S818: 11, 12 D13S317: 12, 13.3 D7S820: 8, 12 D16S539: 9, 10 vWA: 16, 18 TH01: 7 TPOX: 8,12 CSF1PO: 9, 10 |
| **Mycoplasma free** | Yes |
| **存放说明** | Shipped on Dry Ice. Store in liquid nitrogen. |
| **存储溶液** | Constituents: 8.7% Dimethylsulfoxide, 2% Cellulose, methyl ether |

## 靶标

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| **功能** | Component of cohesin complex, a complex required for the cohesion of sister chromatids after DNA replication. The cohesin complex apparently forms a large proteinaceous ring within which sister chromatids can be trapped. At anaphase, the complex is cleaved and dissociates from chromatin, allowing sister chromatids to segregate. The cohesin complex may also play a role in spindle pole assembly during mitosis. |
| **序列相似性** | Belongs to the SCC3 family.<br>Contains 1 SCD (stromalin conservative) domain. |
| **翻译后修饰** | Phosphorylated by PLK. The large dissociation of cohesin from chromosome arms during prophase is partly due to its phosphorylation. |
| **细胞定位** | Nucleus. Chromosome. Chromosome > centromere. Associates with chromatin. Before prophase it is scattered along chromosome arms. During prophase, most of cohesin complexes dissociate from chromatin probably because of phosphorylation by PLK, except at centromeres, where cohesin complexes remain. At anaphase, the RAD21 subunit of cohesin is cleaved, leading to the dissociation of the complex from chromosomes, allowing chromosome separation. In germ cells, cohesin complex dissociates from chromatin at prophase I, and may be replaced by a meiosis-specific cohesin complex. |

## 应用

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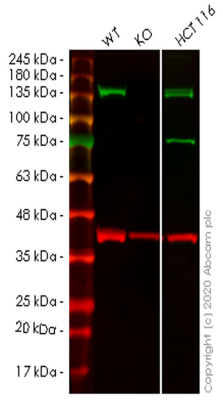
|---|---|
| **The Abpromise guarantee** | **Abpromise™承诺保证使用**ab265461**于以下的**经测试应用 |

“应用说明”部分 下显示的仅为推荐的起始稀释度；实际最佳的稀释度/浓度应由使用者检定。

| 应用 | Ab评论 | 说明 |
|---|---|---|
| **WB** | | Use at an assay dependent concentration. Predicted molecular weight: 141 kDa. |

## 图片




Western blot - Human STAG2 knockout HeLa cell line (ab265461)

**All lanes :** Anti-SA2 antibody [EPR10994(B)] (**ab155081**) at 1/500 dilution

**Lane 1 :** Wild-type HeLa cell lysate
**Lane 2 :** STAG2 knockout HeLa cell lysate
**Lane 3 :** HCT116 cell lysate

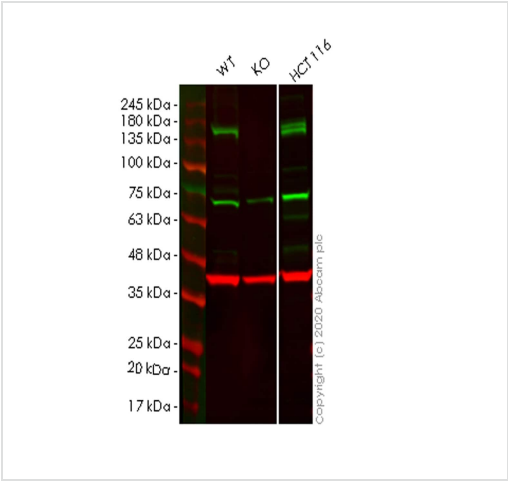
Lysates/proteins at 20 µg per lane.

**Secondary**
**All lanes :** Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/10000 dilution

**Predicted band size:** 141 kDa
**Observed band size:** 141 kDa

**Lanes 1-3:** Merged signal (red and green). Green - **ab155081** observed at 141 kDa. Red - loading control **ab8245** observed at 36 kDa.

**ab155081** Anti-SA2 antibody [EPR10994(B)] was shown to specifically react with SA2 in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab265461 (knockout cell lysate **ab257707**) was used. Wild-type and SA2 knockout samples were subjected to SDS-PAGE. **ab155081** and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 500 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.




Western blot - Human STAG2 knockout HeLa cell line (ab265461)

**All lanes :** Anti-SA2 antibody [EPR17865] - C-terminal (**ab201451**) at 1/1000 dilution

**Lane 1 :** Wild-type HeLa cell lysate
**Lane 2 :** STAG2 knockout HeLa cell lysate
**Lane 3 :** HCT116 cell lysate

Lysates/proteins at 20 µg per lane.

**Secondary**
**All lanes :** Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/10000 dilution

**Predicted band size:** 141 kDa
**Observed band size:** 141 kDa

**Lanes 1-3:** Merged signal (red and green). Green - **ab201451** observed at 141 kDa. Red - loading control **ab8245** observed at 36 kDa.

**ab201451** Anti-SA2 antibody [EPR17865] - C-terminal was shown to specifically react with SA2 in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab265461 (knockout cell lysate **ab257707**) was used. Wild-type and SA2 knockout samples were subjected to SDS-PAGE. **ab201451** and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.


Sanger Sequencing - Human STAG2 knockout HeLa cell line (ab265461)

Homozygous: Insertion of the selection cassette in exon 11.

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

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