

### Anti-SESN2/Sestrin-2 antibody [EPR18907] ab178518

敲除验证
重组
RabMAb

[14 References](#)
[11 图像](#)

#### 概述

|       |   |
|-------|---|
| 产品名称  | Anti-SESN2/Sestrin-2抗体[EPR18907]  |
| 描述    | 兔单克隆抗体[EPR18907] to SESN2/Sestrin-2   |
| 宿主    | Rabbit  |
| 经测试应用 | 适用于: WB, ICC/IF, IP, Flow Cyt (Intra)   |
| 种属反应性 | 与反应: Mouse, Rat, Human  |
| 免疫原   | Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.  |
| 阳性对照  | WB: HeLa whole cell lysate treated with 10 mM H2O2 for 1 hour; HeLa, LoVo, 293, NIH/3T3, HCT 116, Rat1, RAW 264.7, C6 and PC-12 whole cell lysates; Human colon, fetal liver, testis and fetal kidney lysates; Mouse spleen lysate. HEK-293 cell lysate. ICC/IF: HCT 116 cells. Flow Cyt (intra): NIH/3T3 and HCT 116 cells. IP: HeLa whole cell lysate.  |
| 常规说明  | <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> |

#### 性能

|      |   |
|------|---|
| 形式   | Liquid  |
| 存放说明 | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. |
| 存储溶液 | Preservative: 0.01% Sodium azide<br>Constituents: PBS, 40% Glycerol, 0.05% BSA  |
| 纯度   | Protein A purified  |
| 克隆   | 单克隆   |
| 克隆编号 | EPR18907  |

应用

The Abpromise guarantee

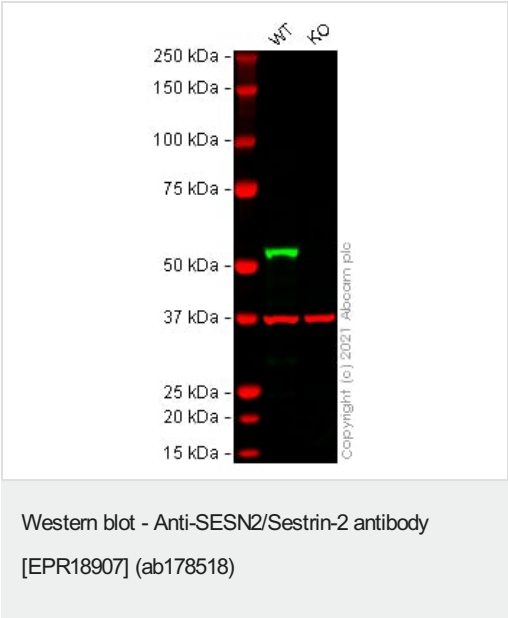
Abpromise™承诺保证使用ab178518于以下的经测试应用

“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               |      | 1/1000. Detects a band of approximately 54 kDa (predicted molecular weight: 54 kDa). |
| ICC/IF           |      | 1/100. ICC/IF is recommended for human and rat only.                                 |
| IP               |      | 1/30.  |
| Flow Cyt (Intra) |      | 1/60.  |

靶标

图片



**All lanes :** Anti-SESN2/Sestrin-2 antibody [EPR18907] (ab178518) at 1/1000 dilution

**Lane 1 :** Wild-type HEK-293 cell lysate

**Lane 2 :** SESN2 knockout HEK-293 cell lysate

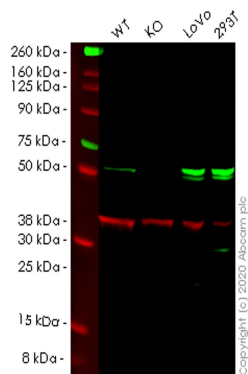
Performed under reducing conditions.

**Predicted band size:** 54 kDa

**Observed band size:** 54 kDa

False colour image of Western blot: Anti-SESN2/Sestrin-2 antibody [EPR18907] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] ([ab8245](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab178518 was shown to bind specifically to SESN2/Sestrin-2. A band was observed at 54 kDa in wild-type HEK-293 cell lysates with no signal observed at this size in SESN2 knockout cell line [ab269486](#) (knockout cell lysate [ab269650](#)). To generate this image, wild-type

and SESN2 knockout HEK-293 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween<sup>®</sup> 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye<sup>®</sup> 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 680RD) preabsorbed (**ab216776**) at 1/20000 dilution.



Western blot - Anti-SESN2/Sestrin-2 antibody [EPR18907] (ab178518)

**All lanes :** Anti-SESN2/Sestrin-2 antibody [EPR18907] (ab178518) at 1/1000 dilution

**Lane 1 :** Wild-type HeLa cell lysate

**Lane 2 :** SESN2 knockout HeLa cell lysate

**Lane 3 :** LoVo cell lysate

**Lane 4 :** HEK-293T cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

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

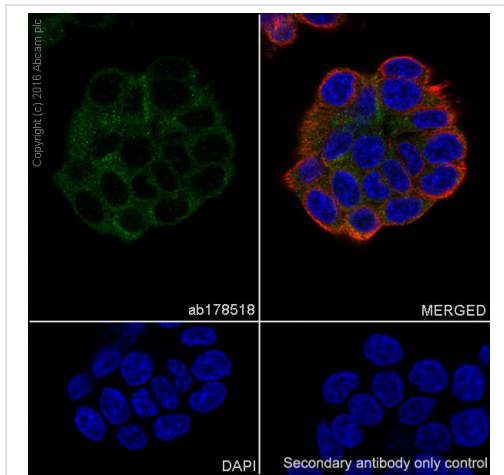
**Predicted band size:** 54 kDa

**Observed band size:** 54 kDa

**Lanes 1-4:** Merged signal (red and green). Green - ab178518 observed at 54 kDa. Red - loading control **ab8245** observed at 36 kDa.

ab178518 Anti-SESN2/Sestrin-2 antibody [EPR18907] was shown to specifically react with SESN2/Sestrin-2 in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab265669** (knockout lysate **ab257665**) was used. Wild-type and SESN2/Sestrin-2 knockout samples were subjected to SDS-PAGE. ab178518 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated at room temperature for 2.5 hours at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye<sup>®</sup> 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in

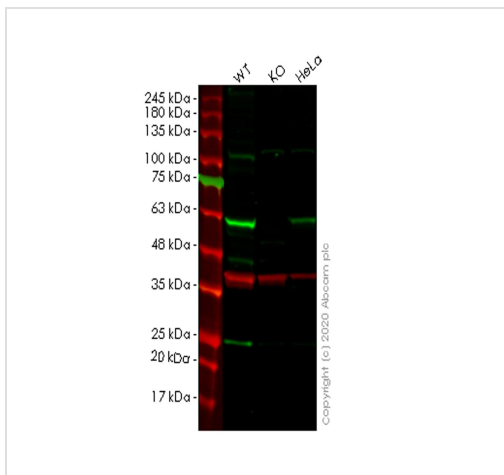
20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-  
SESN2/Sestrin-2 antibody [EPR18907] (ab178518)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HCT 116 (Human colorectal carcinoma cell line) cells labeling SESN2/Sestrin-2 with ab178518 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on HCT116 cells. The nuclear counter stain is DAPI (blue). Tubulin is detected with [ab195889](#) Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at 1/250 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution.



Western blot - Anti-SESN2/Sestrin-2 antibody  
[EPR18907] (ab178518)

**All lanes :** Anti-SESN2/Sestrin-2 antibody [EPR18907] (ab178518) at 1/1000 dilution

**Lane 1 :** Wild-type HeLa cell lysate

**Lane 2 :** SESN2 knockout HeLa cell lysate

**Lane 3 :** HeLa 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

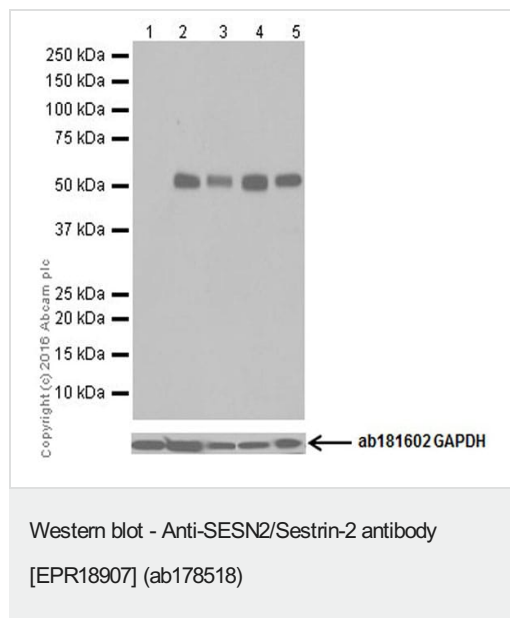
**Predicted band size:** 54 kDa

**Observed band size:** 54 kDa

**Lanes 1-3:** Merged signal (red and green). Green - ab178518 observed at 54 kDa. Red - loading control [ab8245](#) observed at 36 kDa.

ab178518 Anti-SESN2/Sestrin-2 antibody [EPR18907] was shown to specifically react with SESN2/Sestrin-2 in wild-type HeLa cells. Loss of signal was observed when knockout cell line [ab265669](#) (knockout cell lysate [ab257665](#)) was used. Wild-type and SESN2/Sestrin-2 knockout samples were subjected to SDS-PAGE. ab178518 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.



**All lanes** : Anti-SESN2/Sestrin-2 antibody [EPR18907] (ab178518) at 1/1000 dilution

**Lane 1** : Untreated HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

**Lane 2** : HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate treated with 10 mM H<sub>2</sub>O<sub>2</sub> for 1 hour

**Lane 3** : LoVo (Human colorectal adenocarcinoma cell line) whole cell lysate

**Lane 4** : 293T (Human epithelial cell line from embryonic kidney) whole cell lysate

**Lane 5** : NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

**Predicted band size:** 54 kDa

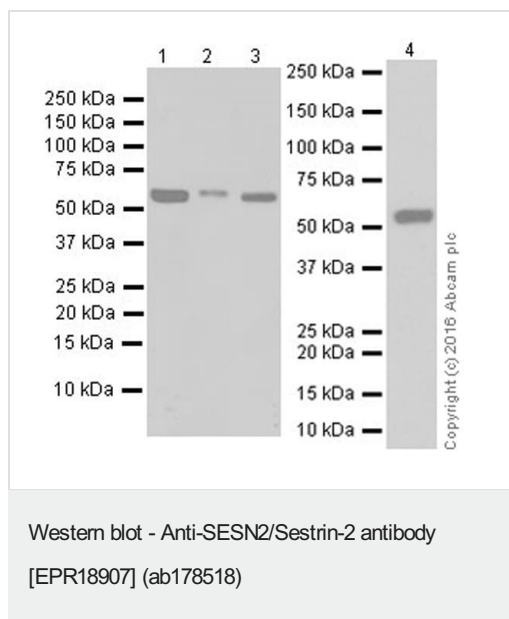
**Observed band size:** 54 kDa

**Exposure time:** 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

Sestrin expression is induced by H<sub>2</sub>O<sub>2</sub> treatment, which is consistent with what has been described in the literature (PMID: 25337554).

Exposure time: 3 minutes



**All lanes :** Anti-SESN2/Sestrin-2 antibody [EPR18907] (ab178518) at 1/1000 dilution

**Lane 1 :** Human colon lysate

**Lane 2 :** Human fetal liver lysate

**Lane 3 :** Human testis lysate

**Lane 4 :** Human fetal kidney lysate

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

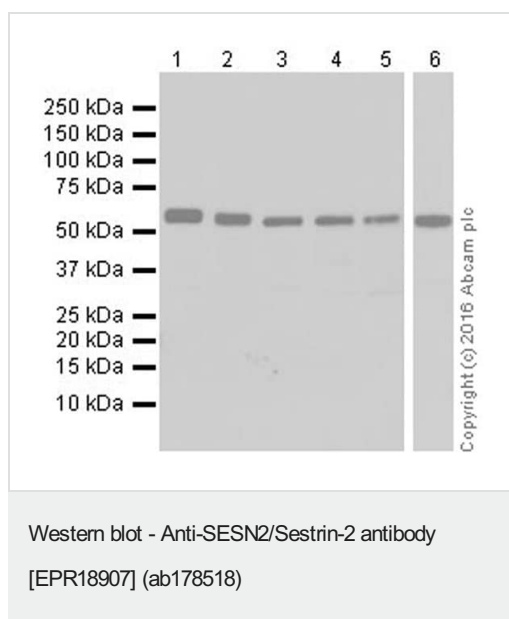
**Predicted band size:** 54 kDa

**Observed band size:** 54 kDa

**Exposure time:** 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: 3 minutes



**All lanes :** Anti-SESN2/Sestrin-2 antibody [EPR18907] (ab178518) at 1/1000 dilution

**Lane 1 :** HCT 116 (Human colorectal carcinoma cell line) whole cell lysate

**Lane 2 :** Rat1 (Rat fibroblast cell line) whole cell lysate

**Lane 3 :** C6 (Rat glial tumor cell line) whole cell lysate

**Lane 4 :** RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate

**Lane 5 :** Mouse spleen lysate

**Lane 6 :** PC-12 (Rat adrenal gland pheochromocytoma cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at

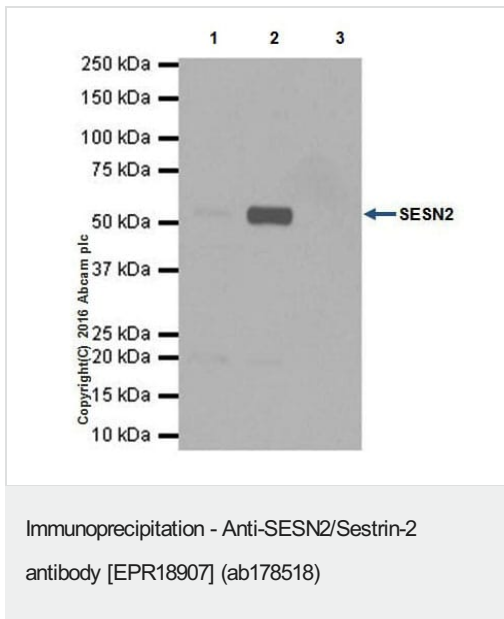
1/100000 dilution

**Predicted band size:** 54 kDa

**Observed band size:** 54 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure times: Lane 1, 2, 3, 4 and 5: 3 minutes; Lane 6: 30 seconds.



SES2/Sestrin-2 was immunoprecipitated from 0.35 mg of HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab178518 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab178518 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/10000 dilution.

Lane 1: HeLa whole cell lysate, 10 µg (Input).

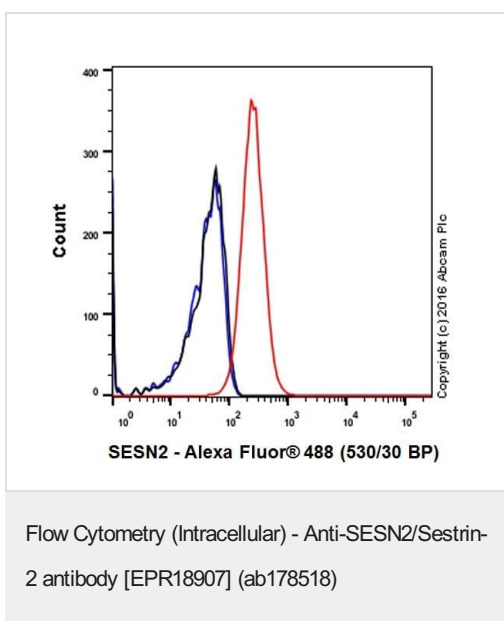
Lane 2: ab178518 IP in HeLa whole cell lysate.

Lane 3: Rabbit IgG, monoclonal [EPR25A] - Isotype Control ([ab172730](#)) instead of ab178518 in HeLa whole cell lysate.

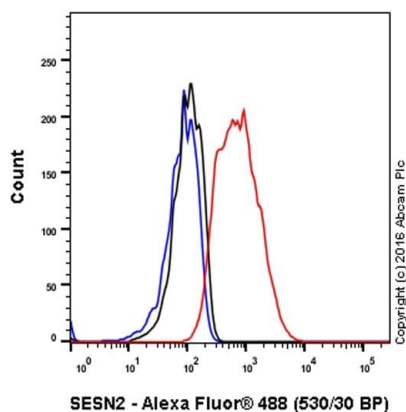
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes.

SES2/Sestrin-2 expression is low in HeLa cells and can be enriched through immunoprecipitation.



Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed NIH/3T3 (Mouse embryonic fibroblast cell line) cells labeling SES2/Sestrin-2 with ab178518 at 1/60 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype control ([ab172730](#)) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti Rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody.



Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed HCT 116 (Human colorectal carcinoma cell line) cells labeling SESN2/Sestrin-2 with ab178518 at 1/60 dilution (red) compared with a rabbit monoclonal IgG isotype control (**ab172730**; black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody.

Flow Cytometry (Intracellular) - Anti-SESN2/Sestrin-2 antibody [EPR18907] (ab178518)

#### Why choose a recombinant antibody?



**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

Anti-SESN2/Sestrin-2 antibody [EPR18907]  
(ab178518)

**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