# abcam

## Product datasheet

# Anti-IRAK-1 antibody [EPR18630] ab180747





重组 RabMAb

3 References 4 图像

概述

产品名称 Anti-IRAK-1抗体[EPR18630]

描述 兔单克隆抗体[EPR18630] to IRAK-1

宿主 Rabbit

经测试应用 适用于: WB, IP

不适用于: ICC/IF

种属反应性 与反应: Human

免疫原 Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

阳性对照 WB: HEK-293, Jurkat, K562 and HeLa whole cell lysates. ICC/IF: HeLa and K562 cells. IP: HEK-

293 whole cell lysate.

常规说明 This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

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

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

纯度 Protein A purified

克降 单克隆

克隆编号 EPR18630

同种型 ΙgG

#### The Abpromise guarantee Abpromise™承诺保证使用ab180747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 77 kDa (predicted molecular weight: 77 kDa).
IP		1/100.

应用说明 Is unsuitable for ICC/IF.

功能 Binds to the IL-1 type I receptor following IL-1 engagement, triggering intracellular signaling

cascades leading to transcriptional up-regulation and mRNA stabilization. Isoform 1 binds rapidly but is then degraded allowing isoform 2 to mediate a slower, more sustained response to the cytokine. Isoform 2 is inactive suggesting that the kinase activity of this enzyme is not required for

IL-1 signaling. Once phosphorylated, IRAK1 recruits the adapter protein PELI1.

组织**特异性** Isoform 1 and isoform 2 are ubiquitously expressed in all tissues examined, with isoform 1 being

more strongly expressed than isoform 2.

**序列相似性** Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. Pelle subfamily.

Contains 1 protein kinase domain.

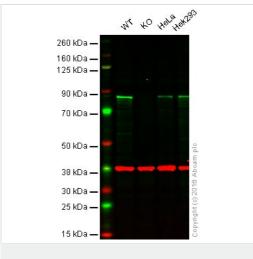
翻译后修饰 Autophosphorylated or is transphosphorylated by IRAK4 following recruitment to the IL-1RI. In the

case of isoform 1, this is linked to ubiquitination and degradation.

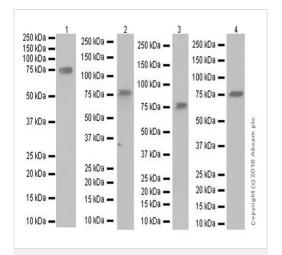
Polyubiquitinated; after cell stimulation with IL-1-beta. Polyubiquitination occurs with polyubiquitin

chains linked through 'Lys-63'.

#### 图片



Western blot - Anti-IRAK-1 antibody [EPR18630] (ab180747)



Western blot - Anti-IRAK-1 antibody [EPR18630] (ab180747)

Lane 1: Wild type HAP1 whole cell lysate (20 µg)

Lane 2: IRAK-1 knockout HAP1 whole cell lysate (20 µg)

Lane 3: HeLa whole cell lysate (20 µg)

Lane 4: Hek293 whole cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - ab180747 observed at 85 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab180747 was shown to specifically react with IRAK-1 when IRAK-1 knockout samples were used. Wild-type and IRAK-1 knockout samples were subjected to SDS-PAGE. Ab180747 and <a href="mailto:ab8245">ab8245</a> (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10000 dilution respectively. Blots were developed with 800CW Goat anti-Rabbit and 680CW Goat anti-Mouse secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

**All lanes :** Anti-IRAK-1 antibody [EPR18630] (ab180747) at 1/1000 dilution

**Lane 1 :** HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

Lane 2 : Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate

**Lane 3 :** K562 (Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate

**Lane 4 :** HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

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

**Predicted band size:** 77 kDa **Observed band size:** 77 kDa

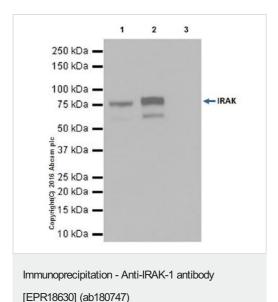
Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1: 10 seconds; Lane 2: 3 minutes; Lane 3: 30

seconds; Lane 4: 1 minute.

There are two splice variants for IRAK-1, IRAK-1b and IRAK-1c,

respectively. The product recognizes full length IRAK-1 (80kDa).



IRAK-1 was immunoprecipitated from 0.35 mg of HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate with ab180747 at 1/100 dilution. Western blot was performed from the immunoprecipitate using ab180747 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/1000 dilution.

Lane 1: HEK-293 whole cell lysate 10µg (Input).

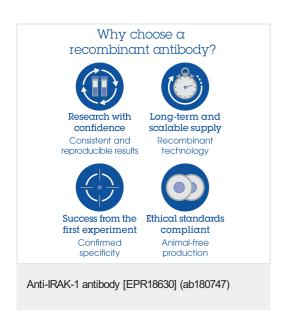
Lane 2: ab180747 IP in HEK-293 whole cell lysate.

Lane 3: Rabbit monoclonal  $\lg G$  ( $\underline{ab172730}$ ) instead of ab180747 in HEK-293 whole cell lysate.

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

Exposure time: 30 seconds.

The 68kDa band observed is likely a splice variant, according to PMID: 16690127.



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 <a href="https://www.abcam.cn/abpromise">https://www.abcam.cn/abpromise</a> or contact our technical team.

### Terms and conditions

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