


### Anti-HAUSP / USP7 antibody [EPR4254] ab109109

KO 評価済 リコンビナント RabMAb

1 Abreviews 1 References 画像数 4

#### 製品の概要

|              |   |
|--------------|---|
| 製品名          | Anti-HAUSP / USP7 antibody [EPR4254]  |
| 製品の詳細        | Rabbit monoclonal [EPR4254] to HAUSP / USP7   |
| 由来種          | Rabbit  |
| アプリケーション     | 適用あり: WB<br>適用なし: Flow Cyt, ICC/IF or IHC-P   |
| 種交差性         | 交差種: Human<br>交差が予測される動物種: Mouse, Rat    |
| 免疫原          | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.   |
| ポジティブ・コントロール | WB: HEK-293T, T47-D and HeLa cell lysates.  |
| 特記事項         | <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> |

#### 製品の特性

|       |  |
|-------|--|
| 製品の状態 | Liquid   |
| 保存方法  | Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.   |
| バッファー | pH: 7.20<br>Preservative: 0.05% Sodium azide<br>Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant |
| 精製度   | Protein A purified   |
| ポリ/モノ | モノクローナル  |
| クローン名 | EPR4254  |

## アプリケーション

**The Abpromise guarantee** Abpromise保証は、 次のテスト済みアプリケーションにおけるab109109の使用に適用されます  
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

| アプリケーション | Abreviews | 特記事項   |
|----------|-----------|--|
| WB       |           | 1/1000 - 1/10000. Detects a band of approximately 135 kDa (predicted molecular weight: 128 kDa). |

## 追加情報

Is unsuitable for Flow Cyt, ICC/IF or IHC-P.

## ターゲット情報

## 機能

Hydrolase that deubiquitinates target proteins such as FOXO4, p53/TP53, MDM2, ERCC6, DNMT1, UHRF1, PTEN and DAXX (PubMed:11923872, PubMed:15053880, PubMed:16964248, PubMed:18716620, PubMed:25283148). Together with DAXX, prevents MDM2 self-ubiquitination and enhances the E3 ligase activity of MDM2 towards p53/TP53, thereby promoting p53/TP53 ubiquitination and proteasomal degradation. Deubiquitinates p53/TP53, preventing degradation of p53/TP53, and enhances p53/TP53-dependent transcription regulation, cell growth repression and apoptosis (PubMed:25283148). Deubiquitinates p53/TP53 and MDM2 and strongly stabilizes p53/TP53 even in the presence of excess MDM2, and also induces p53/TP53-dependent cell growth repression and apoptosis. Deubiquitination of FOXO4 in presence of hydrogen peroxide is not dependent on p53/TP53 and inhibits FOXO4-induced transcriptional activity. In association with DAXX, is involved in the deubiquitination and translocation of PTEN from the nucleus to the cytoplasm, both processes that are counteracted by PML. Involved in cell proliferation during early embryonic development. Involved in transcription-coupled nucleotide excision repair (TC-NER) in response to UV damage: recruited to DNA damage sites following interaction with KIAA1530/UVSSA and promotes deubiquitination of ERCC6, preventing UV-induced degradation of ERCC6. Contributes to the overall stabilization and trans-activation capability of the herpesvirus 1 trans-acting transcriptional protein ICP0/VMW110 during HSV-1 infection. Involved in maintenance of DNA methylation via its interaction with UHRF1 and DNMT1: acts by mediating deubiquitination of UHRF1 and DNMT1, preventing their degradation and promoting DNA methylation by DNMT1 (PubMed:21745816). Exhibits a preference towards 'Lys-48'-linked ubiquitin chains. Increases regulatory T-cells (Treg) suppressive capacity by deubiquitinating and stabilizing the transcription factor FOXP3 which is crucial for Treg cell function (PubMed:23973222).

## 組織特異性

Widely expressed. Overexpressed in prostate cancer.

## 配列類似性

Belongs to the peptidase C19 family.  
Contains 1 MATH domain.  
Contains 1 USP domain.

## ドメイン

The C-terminus plays a role in its oligomerization.

## 翻訳後修飾

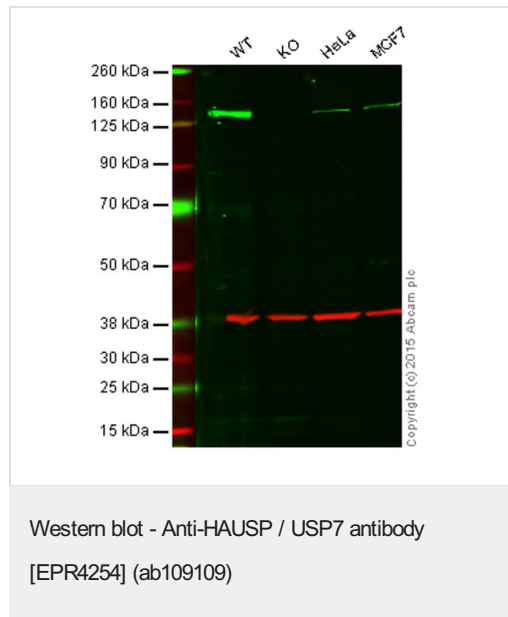
Isoform 1: Phosphorylated. Isoform 1 is phosphorylated at positions Ser-18 and Ser-963. Isoform 2: Not phosphorylated.  
Isoform 1: Polyneddylated. Isoform 2: Not Polyneddylated.  
Isoform 1 and isoform 2: Not sumoylated.  
Isoform 1 and isoform 2: Polyubiquitinated by herpesvirus 1 trans-acting transcriptional protein

ICP0/VMW110; leading to its subsequent proteasomal degradation. Isoform 1: Ubiquitinated at Lys-869.

## 細胞内局在

Nucleus. Cytoplasm. Nucleus, PML body. Present in a minority of ND10 nuclear bodies. Association with ICP0/VMW110 at early times of infection leads to an increased proportion of USP7-containing ND10. Colocalizes with ATXN1 in the nucleus. Colocalized with DAXX in speckled structures. Colocalized with PML and PTEN in promyelocytic leukemia protein (PML) nuclear bodies.

## 画像



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

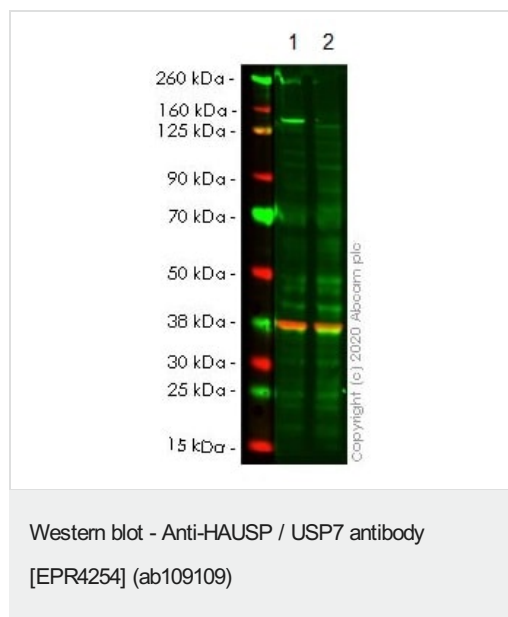
**Lane 2:** HAUSP / USP7 knockout HAP1 cell lysate (20 µg)

**Lane 3:** HeLa cell lysate (20 µg)

**Lane 4:** MCF-7 cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - ab109109 observed at 135 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

ab109109 was shown to specifically react with HAUSP / USP7 when HAUSP / USP7 knockout samples were used. Wild-type and HAUSP / USP7 knockout samples were subjected to SDS-PAGE. ab109109 and [ab8245](#) (loading control to GAPDH) were diluted 1/1000 and 1/2000 respectively and incubated overnight at 4°C. 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 1/10000 dilution for 1 h at room temperature before imaging.



**All lanes :** Anti-HAUSP / USP7 antibody [EPR4254] (ab109109) at 1/1000 dilution

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

**Lane 2 :** USP7 CRISPR/Cas9 edited HEK-293T cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

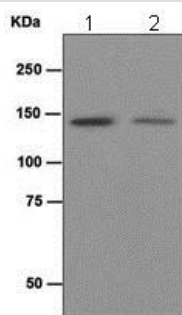
**Predicted band size:** 128 kDa

**Observed band size:** 128 kDa

**Lanes 1- 2:** Merged signal (red and green). Green - ab109109 observed at 128 kDa. Red - Anti-GAPDH antibody [6C5] - Loading

Control ([ab8245](#)) observed at 37 kDa.

ab109109 was shown to react with HAUSP / USP7 in wild-type HEK-293T cells in western blot. The band observed in CRISPR/Cas9 edited cell line [ab266535](#) (CRISPR/Cas9 edited cell lysate [ab257284](#)) lane below 128kDa may represent truncated forms and cleaved fragments. This has not been investigated further. Wild-type HEK-293T and USP7 CRISPR/Cas9 edited HEK-293T cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab109109 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) were incubated overnight at 4°C at a 1 in 1000 dilution and a 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 - Anti-HAUSP / USP7 antibody [EPR4254] (ab109109)

**All lanes :** Anti-HAUSP / USP7 antibody [EPR4254] (ab109109) at 1/1000 dilution

**Lane 1 :** T47-D cell lysate

**Lane 2 :** Hela cell lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes :** HRP labelled goat anti-rabbit at 1/2000 dilution

**Predicted band size:** 128 kDa

**Observed band size:** 135 kDa

### 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-HAUSP / USP7 antibody [EPR4254]  
(ab109109)

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

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