# abcam

## **Product datasheet**

# Anti-HAUSP / USP7 antibody [EPR4253] - BSA and Azide free ab239936

KO 評価済 RabMAb

### 画像数6

製品の概要		
製品名	Anti-HAUSP / USP7 antibody [EPR4253] - BSA and Azide free	
製品の詳細	Rabbit monoclonal [EPR4253] to HAUSP / USP7 - BSA and Azide free	
由来種	Rabbit	
アプリケーション	適用あり: IHC-P, Flow Cyt (Intra), ICC/IF, WB 適用なし: IP	
種交差性	交差種: Mouse, Rat, Human	
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-29T cell lysate. Flow Cyt (intra): HeLa cells. IHC-P: Human colon tissue. ICC: HeLa cells.	
特記事項	ab239936 is the carrier-free version of <u>ab108931</u> .	
	Our <u>carrier-free</u> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.	
	This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.	
	Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.	
	This product is compatible with the Maxpar <sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar <sup>®</sup> is a trademark of Fluidigm Canada Inc.	
	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 <u>see here</u> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit	

#### 製品の状態 Liquid 保存方法 Shipped at 4°C. Store at +4°C. Do Not Freeze. バッファー pH: 7.2 Constituent: PBS キャリア・フリー はい 精製度 Protein A purified ポリ/モノ モノクローナル クローン名 EPR4253 アイソタイプ lgG

アプリケーション

製品の特性

The Abpromise guaranteeAbpromise保証は、次のテスト済みアプリケーションにおけるab239936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
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Antigen retrieval is recommended.
Flow Cyt (Intra)		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 128 kDa.

追加情報

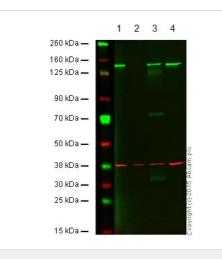
Is unsuitable for IP.

#### 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	<ul> <li>Isoform 1: Phosphorylated. Isoform 1 is phosphorylated at positions Ser-18 and Ser-963. Isoform 2: Not phosphorylated.</li> <li>Isoform 1: Polyneddylated. Isoform 2: Not Polyneddylated.</li> <li>Isoform 1 and isoform 2: Not sumoylated.</li> <li>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.</li> </ul>
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.



Western blot - Anti-HAUSP / USP7 antibody [EPR4253] - BSA and Azide free (ab239936) This data was developed using the same antibody clone in a different buffer formulation (<u>ab108931</u>).

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

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

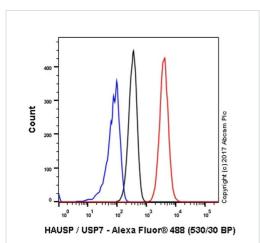
Lane 3: HeLa cell lysate (20  $\mu$ g)

Lane 4: MCF7 cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green -<u>ab108931</u> observed at 115 kDa. Red - loading control, <u>ab8245</u>,

observed at 37 kDa.

**ab108931** 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. **ab108931** 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<sup>®</sup> 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 680RD) preadsorbed (**ab216776**) secondary antibodies at 1/10 000 dilution for 1 h at room temperature before imaging.



Flow Cytometry (Intracellular) - Anti-HAUSP / USP7 antibody [EPR4253] - BSA and Azide free (ab239936) Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling HAUSP / USP7 with unpurified <u>ab108931</u> at 1/30 dilution (10ug/ml) (red). Cells were fixed with 80% methanol and permeabilised with 0.1% Tween-20. A Goat anti rabbit lgG (Alexa Fluor<sup>®</sup> 488) (<u>ab150077</u>) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal lgG (Black) (<u>ab172730</u>) was used as the isotype control, Cell without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (<u>ab108931</u>).



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-HAUSP / USP7 antibody [EPR4253] - BSA and Azide free (ab239936)

1 2 260 kDa -160 kDa-125 kDa -90 kDa -70 kDa -50 kDa -38 kDa -30 kDa -25 kDa-

Western blot - Anti-HAUSP / USP7 antibody [EPR4253] - BSA and Azide free (ab239936) ab108931, at 1/50, staining HAUSP / USP7 in Human colon tissue by Immunohistochemistry, Paraffin-embedded tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab108931).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

All lanes : Anti-HAUSP / USP7 antibody [EPR4253] (ab108931) 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.

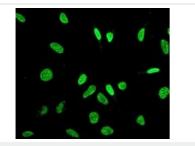
Predicted band size: 128 kDa Observed band size: 128 kDa

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab108931).

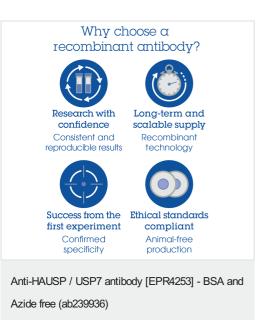
Lanes 1-2: Merged signal (red and green). Green - ab108931 observed at 128 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (ab8245) observed at 37 kDa.

ab108931 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% nonfat dried milk. ab108931 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 (<u>ab216773</u>) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup>680RD) preadsorbed (<u>ab216776</u>) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-HAUSP / USP7 antibody [EPR4253] - BSA and Azide free (ab239936)



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<u>ab108931</u>, at 1/100, staining HAUSP / USP7 in HeLa cells by Immunofluorescence.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab108931**).

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