abcam

Product datasheet

Anti-HAUSP / USP7 antibody [BLR072G] - BSA free ab272079

Recombinant

6 Images

Overview

Product name	Anti-HAUSP / USP7 antibody [BLR072G] - BSA free
Description	Rabbit monoclonal [BLR072G] to HAUSP / USP7 - BSA free
Host species	Rabbit
Tested applications	**Suitable for:** IP, IHC-P, ICC/IF, WB
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide within Human HAUSP/ USP7 aa 1-50. The exact sequence is proprietary. NP_003461.2 Database link: **Q93009**
Positive control	IHC-P: Human prostate carcinoma tissue. Mouse renal cell carcinoma tissue. ICC; OVCAR-4 cells. IP: HEK-293T whole cell lysate. WB: RKO, HEK293T, K-562, Hep-G2, MCF-7, Jurkat, HeLa, U2OS, NIH 3T3, TCMK-1
General notes	ab272079 is the BSA-free version of **ab264422**. This product is sold under License from Bethyl Laboratories, Inc.

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 8.20 Preservative: 0.09% Sodium azide Constituent: 99% Borate buffered saline
Purification notes	Purified from cell culture supernatant.
Clonality	Monoclonal
Clone number	BLR072G
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab272079 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		Use at an assay dependent concentration.
WB		1/1000. Predicted molecular weight: 128 kDa.

Target

Function 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).

Tissue specificity Widely expressed. Overexpressed in prostate cancer.

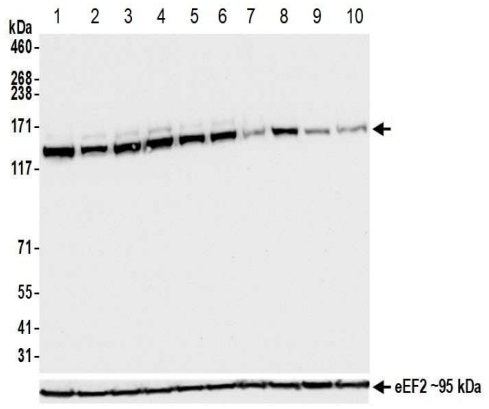
Sequence similarities Belongs to the peptidase C19 family.
Contains 1 MATH domain.
Contains 1 USP domain.

Domain The C-terminus plays a role in its oligomerization.

Post-translational modifications 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.
Cellular localization	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.

Images



Western blot - Anti-HAUSP / USP7 antibody [BLR072G] - BSA free (ab272079)

All lanes : Anti-HAUSP / USP7 antibody [BLR072G] - BSA free (ab272079) at 1/1000 dilution

Lane 1 : RKO whole cell lysate
Lane 2 : HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate
Lane 3 : K562 (Human chronic myelogenous leukemia lymphoblast cell line) whole cell lysate
Lane 4 : HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate
Lane 5 : MCF7 (Human breast adenocarcinoma cell line) whole cell lysate
Lane 6 : Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate
Lane 7 : HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 8 : U-2 OS (Human bone osteosarcoma epithelial cell line) whole cell lysate
Lane 9 : NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate
Lane 10 : TCMK-1 (Mouse kidney epithelial cell line) whole cell lysate

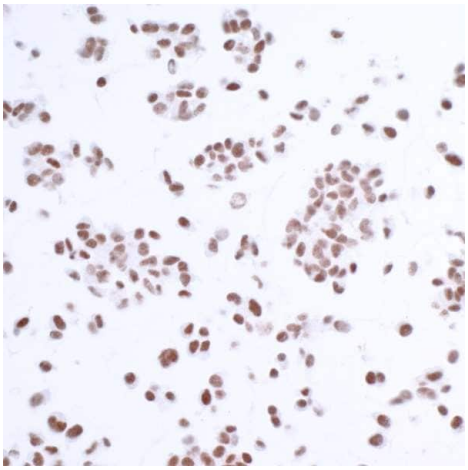
Lysates/proteins at 50 µg per lane.

Secondary
All lanes : HRP-conjugated goat anti-rabbit IgG

Predicted band size: 128 kDa

Exposure time: 3 seconds

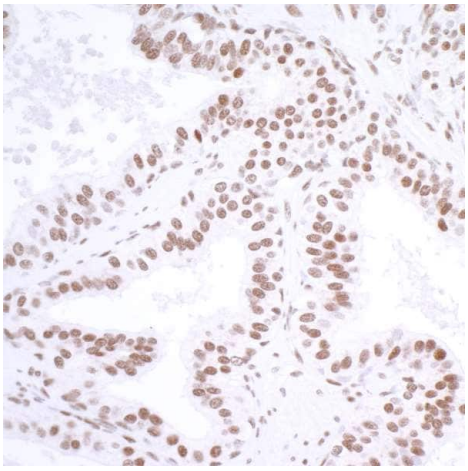
This data was developed using the same antibody clone in a different buffer formulation containing Borate buffered saline, BSA, glycerol and sodium azide (**ab264422**).



Immunocytochemistry/ Immunofluorescence - Anti-HAUSP / USP7 antibody [BLR072G] - BSA free (ab272079)

Immunocytochemical analysis of formalin-fixed, paraffin-embedded OVCAR-4 (Human ovarian cancer cell line) cells labeling HAUSP / USP7 with **ab264422** at 1/250 dilution. Secondary: HRP-conjugated goat anti-rabbit IgG. Substrate: DAB.

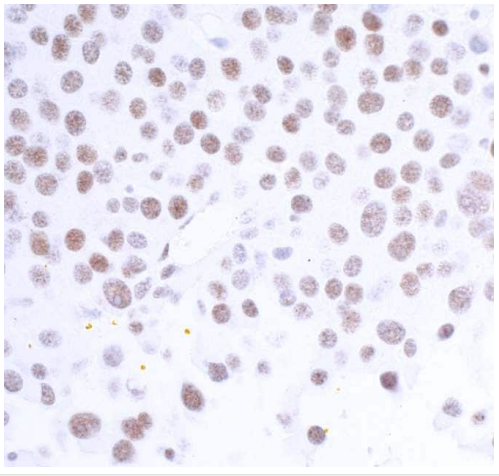
This data was developed using the same antibody clone in a different buffer formulation containing Borate buffered saline, BSA, glycerol and sodium azide (**ab264422**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HAUSP / USP7 antibody [BLR072G] - BSA free (ab272079)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human prostate carcinoma tissue labeling HAUSP / USP7 with **ab264422** at 1/250 dilution.Secondary: HRP-conjugated goat anti-rabbit IgG. Substrate: DAB.

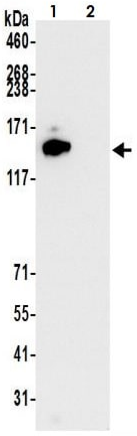
This data was developed using the same antibody clone in a different buffer formulation containing Borate buffered saline, BSA, glycerol and sodium azide (**ab264422**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HAUSP / USP7 antibody [BLR072G] - BSA free (ab272079)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded mouse renal cell carcinoma tissue labeling HAUSP / USP7 with **ab264422** at 1/250 dilution. Secondary: HRP-conjugated goat anti-rabbit IgG. Substrate: DAB.

This data was developed using the same antibody clone in a different buffer formulation containing Borate buffered saline, BSA, glycerol and sodium azide (**ab264422**).



Immunoprecipitation - Anti-HAUSP / USP7 antibody [BLR072G] - BSA free (ab272079)

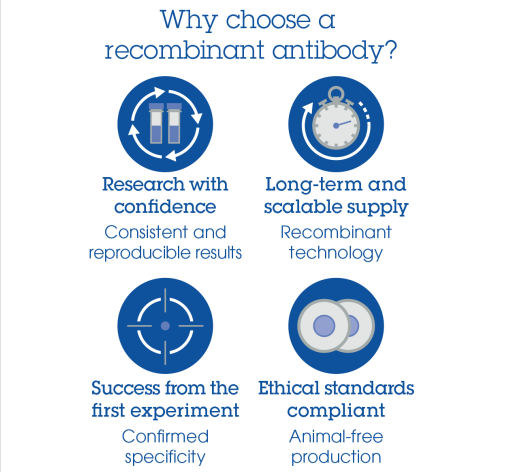
HAUSP / USP7 was immunoprecipitated from HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate (1.0 mg per IP reaction; 20% of IP loaded) with **ab264422** at 20 µl/mg lysate. Western blot was performed from the immunoprecipitates using **ab264422** at 1/1000 dilution

Lane 1: **ab264422** IP in HEK-293T whole cell lysate.
Lane 2: Control IgG IP in HEK-293T whole cell lysate.

Detection: Chemiluminescence with an exposure time of 3 seconds.

Lysates prepared using NETN lysis buffer.

This data was developed using the same antibody clone in a different buffer formulation containing Borate buffered saline, BSA, glycerol and sodium azide (**ab264422**).



Anti-HAUSP / USP7 antibody [BLR072G] - BSA free (ab272079)

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