

# HAUSP (H-12): sc-137008

## BACKGROUND

HAUSP (herpesvirus-associated ubiquitin-specific protease, USP7) is a ubiquitin-specific protease. HAUSP localizes predominantly to the nucleus, in a TD-dependent manner, where it associates with ND10. ND10 are small nuclear structures implicated in a variety of cellular processes including response to stress and interferons, oncogenesis, and viral infection. HAUSP binds strongly to Vmw110, a herpesvirus regulatory protein which has the ability to disrupt ND10. HAUSP, a novel p53-interacting protein, functions to deubiquitinate p53 in an important pathway for p53 stabilization. HAUSP strongly stabilizes p53 even in the presence of excess MDM2, and also induces p53-dependent cell growth repression and apoptosis. The HAUSP protein is distributed in the nucleus in a micropunctate pattern with a limited number of larger discrete foci, some of which co-localize with PML in ND10. The gene encoding HAUSP maps to human chromosome band 16p13.2.

## CHROMOSOMAL LOCATION

Genetic locus: USP7 (human) mapping to 16p13.2; Usp7 (mouse) mapping to 16 A1.

## SOURCE

HAUSP (H-12) is a mouse monoclonal antibody raised against amino acids 11-210 mapping near the N-terminus of HAUSP of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HAUSP (H-12) is available conjugated to agarose (sc-137008 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-137008 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-137008 PE), fluorescein (sc-137008 FITC), Alexa Fluor® 488 (sc-137008 AF488), Alexa Fluor® 546 (sc-137008 AF546), Alexa Fluor® 594 (sc-137008 AF594) or Alexa Fluor® 647 (sc-137008 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-137008 AF680) or Alexa Fluor® 790 (sc-137008 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

HAUSP (H-12) is recommended for detection of HAUSP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HAUSP siRNA (h): sc-41521, HAUSP siRNA (m): sc-77373, HAUSP shRNA Plasmid (h): sc-41521-SH, HAUSP shRNA Plasmid (m): sc-77373-SH, HAUSP shRNA (h) Lentiviral Particles: sc-41521-V and HAUSP shRNA (m) Lentiviral Particles: sc-77373-V.

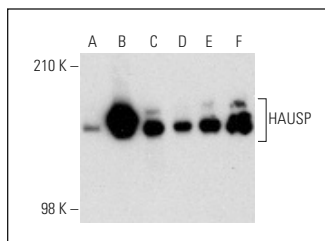
Molecular Weight of HAUSP: 135 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or HAUSP (m): 293T Lysate: sc-178723.

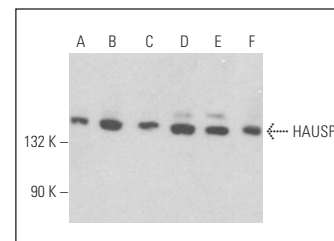
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



HAUSP (H-12): sc-137008. Western blot analysis of HAUSP expression in non-transfected 293T: sc-117752 (A), mouse HAUSP transfected 293T: sc-178723 (B), HeLa (C), A-431 (D), K-562 (E) and Jurkat (F) whole cell lysates.



HAUSP (H-12): sc-137008. Western blot analysis of HAUSP expression in ZR-75-1 (A), IMR-32 (B), Hep G2 (C), U-698-M (D), NIH/3T3 (E) and 3611-RF (F) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Conwell, S.E., et al. 2015. Identification of TRIM27 as a novel degradation target of herpes simplex virus 1 ICPO. *J. Virol.* 89: 220-229.
- Jin, X., et al. 2018. DUB3 promotes BET inhibitor resistance and cancer progression by deubiquitinating BRD4. *Mol. Cell* 71: 592-605.e4.
- Xie, P., et al. 2020. USP7 promotes proliferation of papillary thyroid carcinoma cells through TBX3-mediated p57<sup>KIP2</sup> repression. *Mol. Cell. Endocrinol.* 518: 111037.
- Zhang, T., et al. 2020. USP7 regulates ALS-associated proteotoxicity and quality control through the NEDD4L-SMAD pathway. *Proc. Natl. Acad. Sci. USA* 117: 28114-28125.
- Zhao, S., et al. 2021. A ubiquitin switch controls autocatalytic inactivation of the DNA-protein crosslink repair protease SPRTN. *Nucleic Acids Res.* 49: 902-915.
- An, J., et al. 2022. AMP-activated protein kinase  $\alpha$ 1 promotes tumor development via FOXP3 elevation in tumor-infiltrating Treg cells. *iScience* 25: 103570.
- Qiao, H., et al. 2022. Role of the DUB enzyme USP7 in dendritic arborization, neuronal migration, and autistic-like behaviors in mice. *iScience* 25: 104595.
- Park, H.B., et al. 2022. USP7 regulates the ERK1/2 signaling pathway through deubiquitinating Raf-1 in lung adenocarcinoma. *Cell Death Dis.* 13: 698.
- Wu, Y., et al. 2023. Metabolite asymmetric dimethylarginine (ADMA) functions as a destabilization enhancer of SOX9 mediated by DDAH1 in osteoarthritis. *Sci. Adv.* 9: eade5584.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.