# abcam

# Product datasheet

# Recombinant human HAUSP / USP7 protein ab198464

## 2 图像

#### 描述

序列

产品名称 重组人HAUSP/USP7蛋白

生物活性 Specific activity: 545 pmol/min/μg

**Assay Conditions:** Reaction was performed in 50 mM Tris pH 7.4, 1 mM DTT. 0.5 mM EDTA, and 500 nM Ub-AMC. Reaction was incubated at 37°C for 15 min. and fluorescent signal was

measured at excitation of 340 nm, and emission at 460 nm.

纯**度** >= 66 % SDS-PAGE.

Affinity purified.

**内毒素水平** < 1.000 Eu/µg

表达系统 Baculovirus infected Sf9 cells

Accession Q93009

**蛋白长度** Full length protein

无动物成分 No

性质 Recombinant

种属 Human

MHHHHHHDYKDDDDKNHQQQQQQKAGEQQLSEPEDMEMEAG

DTDDPPRI

TQNPVINGNVALSDGHNTAEEDMEDDTSWRSEATFQFTVERF

SRLSESVL

SPPCFVRNLPWKIMVMPRFYPDRPHQKSVGFFLQCNAESDST

**SWSCHAQA** 

VLKIINYRDDEKSFSRRISHLFFHKENDWGFSNFMAWSEVTD

**PEKGFIDD** 

DKVTFEVFVQADAPHGVAWDSKKHTGYVGLKNQGATCYMNSL

**LQTLFFTN** 

QLRKAVYMMPTEGDDSSKSVPLALQRVFYELQHSDKPVGTKK

LTKSFGWE

TLDSFMQHDVQELCRVLLDNVENKMKGTCVEGTIPKLFRGKM

VSYIQCKE

VDYRSDRREDYYDIQLSIKGKKNIFESFVDYVAVEQLDGDNK

YDAGEHGL

QEAEKGVKFLTLPPVLHLQLMRFMYDPQTDQNIKINDRFEFP

**EQLPLDEF** 

LQKTDPKDPANYILHAVLVHSGDNHGGHYVVYLNPKGDGKWC

**KFDDDVVS** 

1

RCTKEEAIEHNYGGHDDDLSVRHCTNAYMLVYIRESKLSEVL

**QAVTDHDI** 

PQQLVERLQEEKRIEAQKRKERQEAHLYMQVQIVAEDQFCGH

**QGNDMYDE** 

EKVKYTVFKVLKNSSLAEFVQSLSQTMGFPQDQIRLWPMQAR

**SNGTKRPA** 

MLDNEADGNKTMIELSDNENPWTIFLETVDPELAASGATLPK

**FDKDHDVM** 

LFLKMYDPKTRSLNYCGHIYTPISCKIRDLLPVMCDRAGFIQ

**DTSLILYE** 

EVKPNLTERIQDYDVSLDKALDELMDGDIIVFQKDDPENDNS

**ELPTAKEY** 

FRDLYHRVDVIFCDKTIPNDPGFVVTLSNRMNYFQVAKTVAQ

**RLNTDPML** 

LQFFKSQGYRDGPGNPLRHNYEGTLRDLLQFFKPRQPKKLYY

QQLKMKIT

DFENRRSFKCIWLNSQFREEEITLYPDKHGCVRDLLEECKKA

**VELGEKAS** 

GKLRLLEIVSYKIIGVHQEDELLECLSPATSRTFRIEEIPLD

QVDIDKEN

EMLVTVAHFHKEVFGTFGIPFLLRIHQGEHFREVMKRIQSLL

**DIQEKEFE** 

KFKFAIVMMGRHQYINEDEYEVNLKDFEPQPGNMSHPRPWLG

LDHFNKAP KRSRYTYLEKAIKIHN

预测分子量 130 kDa including tags

**氨基酸** 2 to 1102

标签 His-DDDDK tag N-Terminus

额外的序列信息 GenBank Accession No. NM 003470

#### 技术指标

Our Abpromise guarantee covers the use of ab198464 in the following tested applications.

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

应用 Functional Studies

SDS-PAGE

形式 Liquid

#### 制备和贮存

稳定性和存储 Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle.

pH: 8.00

Preservative: 0.61% Imidazole

Constituents: 0.75% Tris HCI, 0.76% Sodium chloride, 0.02% Potassium chloride, 5% Glycerol

(glycerin, glycerine)

This product is an active protein and may elicit a biological response in vivo, handle with caution.

功能

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 deubiguitination 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).

组织特异性

序列相似性

结构域

翻译后修饰

细胞定位

Widely expressed. Overexpressed in prostate cancer.

Belongs to the peptidase C19 family.

Contains 1 MATH domain. Contains 1 USP domain.

The C-terminus plays a role in its oligomerization.

 $Is o form \ 1: Phosphory lated. \ Is o form \ 1 is phosphory lated \ at positions \ Ser-18 \ and \ Ser-963. \ Is o form \ 1 is phosphory lated \ at positions \ Ser-18 \ and \ Ser-963. \ Is oform \ 1 is phosphory lated \ at positions \ Ser-18 \ and \ Ser-963. \ Is oform \ 1 is phosphory lated \ at positions \ Ser-18 \ and \ Ser-963. \ Is oform \ 1 is phosphory lated \ at positions \ Ser-18 \ and \ Ser-963. \ Is oform \ 1 is phosphory lated \ at positions \ Ser-18 \ and \ Ser-963. \ Is oform \ 1 is phosphory lated \ 1 is phosphory lated \ 2 is phosphory lated \ 3 is phosphory \ 3 is phosphory \ 4 is phosphory \$ 

2: Not phosphorylated.

Isoform 1: Polyneddylated. Isoform 2: Not Polyneddylated.

Isoform 1 and isoform 2: Not sumoylated.

lsoform 1 and isoform 2: Polyubiquitinated by herpesvirus 1 trans-acting transcriptional protein ICP0/VMW110; leading to its subsequent proteasomal degradation. Isoform 1: Ubiquitinated at

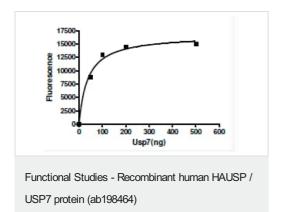
Lys-869.

Nucleus. Cytoplasm. Nucleus, PML body. Present in a minority of ND10 nuclear bodies.

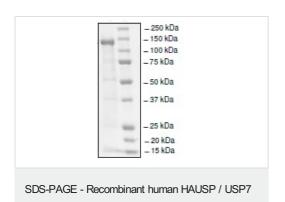
Association with ICP0/VMW110 at early times of infection leads to an increased proportion of USP7-containing ND10. Colocalizes with ATXN1 in the nucleus. Colocalized with DAXX in speckled structures. Colocalized with PML and PTEN in promyelocytic leukemia protein (PML)

nuclear bodies.

图片



Specific activity of ab198464



10% SDS-PAGE analysis of 2  $\mu g$  ab198464 stained with Coomassie

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

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protein (ab198464)

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