

Product datasheet

Recombinant Human HAUSP / USP7 protein (Tagged)
 ab239558

1 Image

Description

Product name	Recombinant Human HAUSP / USP7 protein (Tagged)	
Purity	> 90 % SDS-PAGE.	
Expression system	Escherichia coli	
Accession	Q93009	
Protein length	Protein fragment	
Animal free	No	
Nature	Recombinant	
Species	Human	
Sequence	VGLKNQGATCYMNSLLQTLFFTNQLRKAVYMMPTEGDDS SKSVPLALQRV FYELQHSDKPVGTTKLTGSFGWETLDSFMQHVDVQELCRV LLDNVENKMKG TCVEGTIPKLFGRKMVSYIQCKEVDYRSDRREDYDIQLSIK GKKNIFES FVDYWAVEQLDGDNKYDAGEHGLQEAEKGVKFLTLPPVL HLQLMRMYDP QTDQNIKINDRFEPPEQLPLDEFLLQKTDPKDPANYILHAVL VHSGDNHGG HYVVYLNPKGDGKWKCFDDDDVSRCTKEEAIEHNYGGHD DDL SVRHCTNA YMLVYIRE	
Predicted molecular weight	56 kDa including tags	
Amino acids	214 to 521	
Tags	His tag N-Terminus	
Additional sequence information	N-terminal 10xHis-SUMO-tag and C-terminal Myc-tag.	

Specifications

Our [Abpromise guarantee](#) covers the use of **ab239558** in the following tested applications.

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

Applications SDS-PAGE

Form Liquid

Preparation and Storage

Stability and Storage Shipped at 4°C. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Constituents: Tris buffer, 50% Glycerol (glycerin, glycerine)

General Info

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.

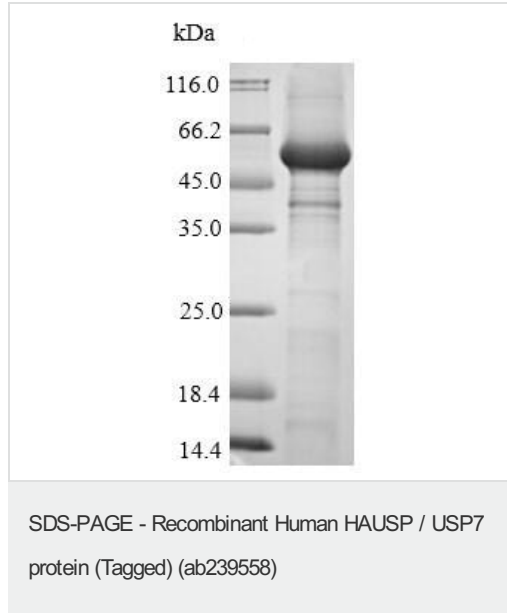
Domain The C-terminus plays a role in its oligomerization.

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



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) analysis with 5% enrichment gel and 15% separation gel of ab239558.

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