

Active Recombinant Human USP7 protein, His-tagged

Cat. No. USP7-922H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human USP7 fused with His tag at N-terminal was expressed in Insect cells.

Species Human

Source Insect Cells

Description Ubiquitin Specific Peptidase 7 (USP7), also known as Herpes Virus-associated Ubiquitin Specific Protease (HAUSP), is a widely expressed deubiquitinating enzyme belonging to the peptidase C19 family. It has a predicted molecular weight of 130 kDa. Human USP7 is 1102 amino acids (aa) in length and shares 99% aa sequence identity with the mouse and rat orthologs. USP7 consists of a cysteine peptidase core (aa 208-560) that is flanked by an N-terminal TRAF-like domain (aa 50-205) and two C-terminal protease-resistant domains (aa 622-801 and 885-1061). USP7 can be phosphorylated at Ser18 and Ser963 and ubiquitinated at Lys869. USP7 was initially identified as a p53-interacting protein that deubiquitinates p53, thereby stabilizing the protein and inducing p53-dependent cell growth arrest and apoptosis. USP7 also targets the p53 regulatory proteins MDM2, MDMX, and Daxx, the epigenetic regulator Histone 2B, and the transcription factor FoxO4. Additionally, USP7 interacts with the HSV-1 immediate early protein ICP0, contributing to the stabilization and transactivation capability of ICP0 during HSV-1 infection.

Form X mg/ml (X μ M) in 50 mM HEPES pH 7.5, 100 mM NaCl, 1 mM TCEP

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Bio-activity	Recombinant Human His6-USP7 is a Ubiquitin-specific deconjugating enzyme. Reaction conditions will need to be optimized for each specific application. We recommend an initial Recombinant Human His6-USP7 concentration of 1-5 nM.
Molecular Mass	129 kDa
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -70 centigrade as supplied. 3 months, -70 centigrade under sterile conditions after opening.
Shipping	The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.

GENE INFORMATION

Gene Name	USP7 ubiquitin specific peptidase 7 (herpes virus-associated) [Homo sapiens]
Official Symbol	USP7
Synonyms	USP7; ubiquitin specific peptidase 7 (herpes virus-associated); HAUSP, ubiquitin specific protease 7 (herpes virus associated); ubiquitin carboxyl-terminal hydrolase 7; ubiquitin thioesterase 7; deubiquitinating enzyme 7; ubiquitin-specific-processing protease 7; herpesvirus-associated ubiquitin-specific protease; Herpes virus-associated ubiquitin-specific protease; ubiquitin specific protease 7 (herpes virus-associated); TEF1; HAUSP;
Gene ID	7874

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mRNA Refseq	NM_003470
Protein Refseq	NP_003461
MIM	602519
UniProt ID	Q93009
Chromosome Location	16p13.3
Pathway	FoxO family signaling, organism-specific biosystem; Herpes simplex infection, organism-specific biosystem; Herpes simplex infection, conserved biosystem; p53 pathway, organism-specific biosystem;
Function	cysteine-type endopeptidase activity; p53 binding; peptidase activity; protein C-terminus binding; protein binding; protein homodimerization activity; transcription factor binding; ubiquitin protein ligase binding; ubiquitin thiolesterase activity; ubiquitin-specific protease activity; ubiquitin-specific protease activity;

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