# Mouse Monoclonal Antibody to Human Ubiquitin Specific Peptidase 7

**Cat. No.** CAB11623MH **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Mouse Monoclonal Antibody to Human Ubiquitin Specific Peptidase 7 |
| **Species** | Human |
| **Source** | Mouse |
| **Antigen Description** | Ubiquitin carboxyl-terminal hydrolase 7, also known as Ubiquitin thioesterase 7, Herpesvirus-associated ubiquitin-specific protease, Ubiquitin-specific-processing protease 7, USP7 and HAUSP, is a widely expressed protein which belongs to the peptidase C19 family. USP7 is a member of the family of deubiquitinating enzymes. It is involved in the regulation of stress response pathways, epigenetic silencing and the progress of infections by DNA viruses. USP7 is a protein with a cysteine peptidase core, N- and C-terminal domains required for protein-protein interactions. USP7 contributes to epigenetic silencing of homeotic genes by Polycomb (Pc). USP7 cleaves ubiquitin fusion protein substrates. It deubiquitinates TP53/p53 and MDM2 and strongly stabilizes TP53 even in the presence of excess MDM2. USP7 also induces TP53-dependent cell growth repression and apoptosis. USP7 has key roles in the p53 pathway whereby it stabilizes both p53 and MDM2. Herpes simplex virus type 1 (HSV-1) regulatory protein ICP0 stimulates lytic infection and the reactivation of quiescent viral genomes. ICP0 interacts very strongly with USP7. USP7-mediated stabilization of ICP0 is dominant over ICP0-induced degradation of USP7 during productive HSV-1 infection. The biological significance of the ICP0-USP7 interaction may be most pronounced in natural infection situations, in which limited amounts of |

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| | ICP0 are expressed. |
| **Specificity** | Human USP7 / HAUSP. No cross-reactivity with Baculovirus lysate in ELISA. |
| **Immunogen** | Recombinant Human USP7 / HAUSP Protein |
| **Isotype** | Mouse IgG2b |
| **Clone** | 8C10I3 |
| **Applications** | Western blot; ELISA |
| **Dilution** | Western blot: This antibody can be used at 1-2 µg/mL with the appropriate secondary reagents to detect Human USP7 (208-560) in WB. Using a DAB detection system, the detection limit for Human USP7 (208-560) is approximately 100 ng/lane under non-reducing conditions and 4 ng/lane under reducing conditions.Direct ELISA: This antibody can be used at 0.5-1 µg with the appropriate secondary reagents to detect Human USP7 (208-560). The detection limit for Human USP7 (208-560) is approximately 0.078 ng/well. |
| **Preparation** | This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant Human USP7 / HAUSP. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography. |
| **Format** | 0.2 µm filtered solution in PBS with 5% trehalose |
| **Storage** | This antibody can be stored at 2-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 to -70 °C. Preservative-Free.Sodium azide is recommended to avoid |

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| | contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles. |

## GENE INFORMATION

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| **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 |
| **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 |

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| | 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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