



## Recombinant Protein Technical Manual

**Recombinant Human USP7/HAUSP Protein (aa 208-560, His & GST Tag)**  
RPES0289

### Product Data:

**Product SKU:** RPES0289

**Size:** 50µg

**Species:** Human

**Expression host:** Baculovirus-Insect Cells

**Uniprot:** NP\_003461.2

### Protein Information:

**Molecular Mass:** 68.8 kDa

**AP Molecular Mass:** 60 kDa

**Tag:** N-His & GST

**Bio-activity:**

**Purity:** > 98 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile 50mM Tris, 100mM NaCl, 0.5mM PMSF, 0.5mM EDTA, pH 8.0

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** HAUSP;TEF1

## Immunogen Information:

**Sequence:** Lys 208-Glu 560

## Background:

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) 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 infection. The biological significance of the ICP0-USP7 interaction may be most pronounced in natural infection situations, in which limited amounts of ICP0 are expressed.