Data Sheet (Cat.No.TMPY-01464)

TargetMol

USP7 Protein, Human, Recombinant (aa 208-560)

General Information

Synonyms:	TEF1;HAUSP;ubiquitin specific peptidase 7 (herpes virus-associated)
Protein Construction:	A DNA sequence encoding the amino acid sequence (Lys 208-Glu 560) of human USP7 (NP_003461.2) expressed and purified, with two additional aa (Gly & Pro) at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	Q93009-1
Molecular Weight:	41 kDa (predicted); 41 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 80 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 50 mM Tris, 100 mM NaCl, 0.5 mM PMSF, pH 8.0.Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein 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 that 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 ICP stimulates lytic infection and the reactivation of quiescent viral genomes. ICP interacts very strongly with USP7. USP7-mediated stabilization of ICP is dominant over ICP-induced degradation of USP7 during productive HSV-1 infection. The biological significance of the ICP-USP7 interaction may be most pronounced in natural infection situations, in which limited amounts of ICP are expressed.

Reference

Zakut-Houri R.,et al.,(1985), Human p53 cellular tumor antigen: cDNA sequence and expression in COS cells. EMBO J. 4:1251-1255.

Lamb P.,et al., (1986), Characterization of the human p53 gene.Mol. Cell. Biol. 6:1379-1385.

Harlow E.,et al.,(1985), Molecular cloning and in vitro expression of a cDNA clone for human cellular tumor antigen p53.Mol. Cell. Biol. 5:1601-1610.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481