Recombinant Human USP1/UAF1 Complex Protein, His-Tagged

Cat. No. USP1-161H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Spodoptera frugiperda, Sf 21 (baculovirus)-derived human USP1/UAF1 Complex protein. Contains a C-terminal 6-His tag
Species	Human
Source	Sf21 Cells
Description	USP1 (Ubiquitin-Specific-processing Protease 1, also known as Ubiquitin carboxyl-terminal hydrolase 1) is a deubiquitinating enzyme of the C19 peptidase family and functions as a negative regulator of the Fanconi Anemia pathway. Reported substrates of USP1 include monoubiquitinated FANCD2 and monoubiquitinated PCNA. USP1 plays important roles in DNA damage responses and cancer-related processes, and inhibiting the function of this deubiquitinase sensitizes some cancer cells to chemotherapy. By itself, USP1 is nearly completely inactive and requires a protein binding partner, UAF1 (USP1-Associated Factor 1, also known as WD Repeat-containing protein 48 or WDR48) to stimulate its deubiquitinase activity. In addition to the naturally occurring substates listed above, the USP1/UAF1 complex has been demonstrated to cleave K6, K33, and K63-linked polyubiquitin chains. Recombinant USP1 protein contains a C-terminal 6-His tag, and glycine-to-alanine substitutions at positions 670 and 671 (UniProt O94782 numbering). Recombinant UAF1 protein also contains a C-terminal 6-His tag. The assembled complex contains 25 μg each of USP1 and UAF1, resulting in a 1:1.2 stoichiometry.

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Molecular Mass	89 kDa (USP1), 77 kDa (UAF1)
Purity	>80%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain
Applications	Bioactivity
Usage	Recombinant Human USP1/UAF1 complex is a Ubiquitin-specific deconjugating enzyme heterodimer. Reaction conditions will need to be optimized for each specific application. We recommend an initial Recombinant Human USP1/UAF1 complex concentration of 0.01-0.5 μM.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -70 °C as supplied. 3 months, -70 °C under sterile conditions after opening.
Storage Buffer	X mg/ml total protein including USP1 (X μM) and UAF1(X μM) in 50 mM HEPES, pH 7.5, 100 mM NaCl, 10% glycerol, 1 mM TCEP
Shipping	The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.

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