Recombinant Human His6 USP1/UAF1 Complex

Catalog Number: E-568

DESCRIPTION

Source	*Spodoptera frugiperda*, *Sf* 21 (baculovirus)-derived human USP1/UAF1 Complex protein Met1 - Leu785 (Gly670Ala, Gly671Ala) with a C-terminal 6-His tag (USP1), Met1 - Thr677 with a C-terminal 6-His tag (UAF1) Accession # O94782.1 (USP1), Q8TAF3.1 (UAF1)
Predicted Molecular Mass	89 kDa (USP1), 77 kDa (UAF1)

SPECIFICATIONS

Activity	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.
Purity	>80%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.
Formulation	Supplied as a 0.2 µm filtered solution in HEPES, NaCl, TCEP and Glycerol. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Shipping	The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 6 months from date of receipt, -70 °C as supplied. • 3 months, -70 °C under sterile conditions after opening.

BACKGROUND

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. Alone, 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. This product is manufactured by combining His6-USP1 and His6-UAF1 at a 1:1 mass ratio.

References:

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2. Huang, T.T., *et al.* (2006) Nat. Cell Biol. **8**: 339.
3. Joo, H-Y., *et al.* (2011) Biol. Chem. **286**: 7190.
4. Moretti, J., *et al.* (2012) J. Biol. Chem. **287**: 29429.
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Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 **Canada** TEL 855 668 8722 **China** TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449