

USP21 Protein, Human

Cat. No.:	HY-P701441
Synonyms:	USP21; Ubiquitin carboxyl-terminal hydrolase 21; Deubiquitinating enzyme 21; Ubiquitin thioesterase 21; Ubiquitin-specific-processing protease 21
Species:	Human
Source:	E. coli
Accession:	Q9UK80 (P2-L565)
Gene ID:	27005
Molecular Weight:	Approximately 62.9 kDa

PROPERTIES

Biological Activity	The fundamental role of USP21 is specific removal of ubiquitin from substrates. USP21 catalyses the ubiquitin from the substrate Ub-Rho110 to release fluorophores. Rho110 will release 535 nM emission light under the excitation condition of 485 nM. The signal of which can be quickly and reliably captured using a microplate reader.
Appearance	Solution
Formulation	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

DESCRIPTION

Background	USP21, a multifunctional deubiquitinase, plays a pivotal role in the epigenetic regulation of transcriptional repression by specifically deubiquitinating histone H2A, acting as a coactivator and relieving the repression of di- and trimethylation of histone H3 at 'Lys-4', thus modulating transcriptional initiation. This regulatory function extends to gene expression modulation through histone H2A deubiquitination. Additionally, USP21 stabilizes BAZ2A/TIP5 through deubiquitination, demonstrating its involvement in the maintenance of protein stability. Furthermore, USP21 exhibits the capability to remove NEDD8 from NEDD8 conjugates without affecting Sentrin-1 conjugates. Notably, it acts as a negative regulator of the ribosome quality control (RQC) by mediating the deubiquitination of 40S ribosomal proteins RPS10/eS10 and RPS20/uS10, thereby counteracting ZNF598-mediated 40S ubiquitination and influencing the intricate dynamics of cellular processes.
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Caution: Product has not been fully validated for medical applications. For research use only.

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