USP51 Protein, Human (Sf9, His, FLAG)

Cat. No.:	HY-P701425
Synonyms:	USP51; Ubiquitin carboxyl-terminal hydrolase 51; Deubiquitinating enzyme 51; Ubiquitin thioesterase 51; Ubiquitin-specific-processing protease 51
Species:	Human
Source:	Sf9 insect cells
Accession:	Q70EK9 (R363-Q706)
Gene ID:	158880
Molecular Weight:	

PROPERTIES

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.
Reconsititution	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	USP51 protein plays a distinctive role in the regulation of the DNA damage response by specifically deubiquitinating 'Lys-14' (H2AK13Ub) and 'Lys-16' (H2AK15Ub) residues of histone H2A at double-strand breaks (DSBs). Following DNA damage, USP51 is recruited to chromatin, where it actively modulates the dynamic assembly and disassembly of TP53BP1 and BRCA1, crucial players in DNA repair processes. In addition to its role in histone H2A deubiquitination, USP51 exhibits activity for 'Lys-27' or 'Lys-63'-linked di-ubiquitin, further expanding its impact on the ubiquitin signaling pathway. The intricate involvement of USP51 in these molecular processes underscores its significance in orchestrating the DNA damage response and highlights its potential as a key player in maintaining genomic integrity.

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