USP37 Protein, Human (Sf9, His)

Cat. No.:	HY-P701455
Synonyms:	USP37; Ubiquitin carboxyl-terminal hydrolase 37; Deubiquitinating enzyme 37; Ubiquitin thioesterase 37; Ubiquitin-specific-processing protease 37
Species:	Human
Source:	Sf9 insect cells
Accession:	Q86T82 (S2-L979)
Gene ID:	57695
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	The USP37 Protein, as delineated in this description, serves as a versatile deubiquitinase with significant roles in various cellular processes, including cell cycle regulation, DNA replication, and DNA damage response. During the G1/S transition, USP37 antagonizes the anaphase-promoting complex (APC/C) by mediating the deubiquitination of cyclin-A (CCNA1 and CCNA2), facilitating S phase entry. Phosphorylation at Ser-628 during G1/S phase enhances its deubiquitinase activity, preventing the degradation of cyclin-A. USP37 further contributes to DNA replication by stabilizing the licensing factor CDT1 and promoting the efficiency and fidelity of replication by deubiquitinating checkpoint kinase 1/CHK1. It sustains the DNA damage response by deubiquitinating and stabilizing the ATP-dependent DNA helicase BLM in the context of DNA double-strand breaks. Additionally, USP37 plays a role in promoting cell migration by deubiquitinating and stabilizing the epithelial-mesenchymal transition (EMT)-inducing transcription factor SNAI. Its involvement in the regulation of mitotic spindle assembly and mitotic progression is highlighted by its association with chromatin-associated WAPL, stabilizing it through deubiquitination. The multifaceted functions of USP37 underscore its importance in coordinating critical cellular events.

Caution: Product has not been fully validated for medical applications. For research use only.

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