

USP13 Protein, Human (GST)

Cat. No.:	HY-P701409
Synonyms:	USP13; Ubiquitin carboxyl-terminal hydrolase 13; Deubiquitinating enzyme 13; Isopeptidase T-3; ISOT-3; Ubiquitin thioesterase 13; Ubiquitin-specific-processing protease 13
Species:	Human
Source:	E. coli
Accession:	Q92995 (Q2-S863)
Gene ID:	8975
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.
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	<p>The USP13 Protein, as outlined in this description, serves as a versatile deubiquitinase involved in various cellular processes, including autophagy, endoplasmic reticulum-associated degradation (ERAD), cell cycle progression, and DNA damage response. It mediates the deubiquitination of target proteins such as BECN1, MITF, SKP2, and USP10, exerting influence on critical pathways. In the regulation of autophagy and p53/TP53 levels, USP13 participates in a complex interplay by deubiquitinating BECN1, stabilizing PIK3C3/VPS34-containing complexes, and forming a deubiquitination complex with NEDD4 to promote autophagy. Additionally, it regulates the stability of USP10, influencing the intricate balance of p53/TP53. USP13 contributes to endoplasmic reticulum-associated degradation (ERAD) by deubiquitinating SKP2 and UBL4A. Furthermore, it plays essential roles in maintaining genomic stability, DNA replication checkpoint activation through regulation of RAP80 and TOPBP1, and modulation of interferon signaling by deubiquitinating STAT1 and STING1. The multifunctional nature of USP13 underscores its significance in orchestrating diverse cellular processes with implications for cellular homeostasis and response to external stimuli.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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