UB2D3 Protein, Human (Sf9, His, Strep)

Cat. No.:	HY-P702065
Synonyms:	UBE2D3; Ubiquitin-conjugating enzyme E2 D3; (E3-independent) E2 ubiquitin-conjugating enzyme D3; E2 ubiquitin-conjugating enzyme D3; Ubiquitin carrier protein D3; Ubiquitin-conjugating enzyme E2(17)KB 3; Ubiquitin-conjugating enzyme E2-17 kDa 3; Ubiquitin-protein ligase D3
Species:	Human
Source:	Sf9 insect cells
Accession:	P61077 (A2-M147)
Gene ID:	/
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	UBE2D3, a pivotal participant in the ubiquitination process, accepts ubiquitin from the E1 complex and orchestrates its covalent attachment to diverse proteins, showcasing its versatility . In vitro, UBE2D3 catalyzes both 'Lys-11'- and 'Lys-48'-linked polyubiquitination, underscoring its role in regulating protein ubiquitination patterns. Collaborating with the E2 CDC34 and the SCF(FBXW11) E3 ligase complex, UBE2D3 contributes to the polyubiquitination of NFKBIA, leading to subsequent proteasomal degradation. Functioning as an initiator E2, UBE2D3 primes the phosphorylated NFKBIA target at positions 'Lys-21' and/or 'Lys-22' with a monoubiquitin, a crucial step preceding ubiquitin chain elongation by CDC34. Notably, UBE2D3 serves as an initiator E2, in conjunction with RNF8, for the priming of PCNA, pivotal in the DNA damage tolerance pathway activated after DNA damage caused by UV or chemical agents during S-phase. Furthermore, UBE2D3 engages with various E3 ligases, including BRCA1/BARD1, MDM2, TOPORS, CBL, STUB1, RNF135, and ZNF598, showcasing its involvement in diverse ubiquitination processes, ranging from DNA repair to the regulation of viral RNA-dependent signaling pathways.

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

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