

## Product Data Sheet

## UBE2O Protein, Human (Sf9, His, Strep)

Cat. No.:	HY-P701493
Synonyms:	UBE2O; (E3-independent) E2 ubiquitin-conjugating enzyme; E2/E3 hybrid ubiquitin-protein ligase UBE2O; Ubiquitin carrier protein O; Ubiquitin-conjugating enzyme E2 O; Ubiquitin- conjugating enzyme E2 of 230 kDa; Ubiquitin-conjugating enzyme E2-230K; Ubiquitin-protein ligase O
Species:	Human
Source:	Sf9 insect cells
Accession:	Q9C0C9 (A2-K1292)
Gene ID:	63893
Molecular Weight:	

PROPERTIES	
Appearance	Solution.
Formulation	Supplied as a 0.22 $\mu m$ 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** UBE2O, functioning as an E2/E3 hybrid ubiquitin-protein ligase, uniquely exhibits both E2 and E3 ligase activities, facilitating the monoubiquitination of target proteins. Notably, UBE2O plays a dual regulatory role in cellular processes by negatively regulating TRAF6-mediated NF-kappa-B activation independently of its E2 activity and positively influencing BMP7 signaling through the monoubiquitination of SMAD6, thereby impacting adipogenesis. Moreover, UBE2O is involved in modulating the subcellular localization of chromatin-associated proteins, such as BAP1, INO80, and CXXC1, by orchestrating monoubiquitination at specific sites, highlighting its versatile role in cellular trafficking. Additionally, UBE2O participates in the regulation of retrograde transport by collaborating with the TRIM27:MAGEL2 E3 ubiquitin ligase complex, promoting 'Lys-63'-linked ubiquitination of WASHC1 and enhancing endosomal F-actin assembly. These multifaceted activities underscore UBE2O's significance in fine-tuning diverse cellular pathways.

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

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